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Original article

Effect of Social Skills Training Program on social functioning in patients with major depressive disorder in Outpatient Psychiatric Department, King Chulalongkorn Memorial Hospital

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Background: Depression is known as a common psychiatric disorder, with a lifetime prevalence of about 12.0%, more prevalent in women than men, and affects patients' lives and their families. Social Skills Training Program (STTP) is aimed to improve the depressed patients' social functioning by encouraging them to develop better social skills, express their emotions, and communicate their needs more effectively.
Objective: The purpose of this study was to study the effect of SSTP on social functions of the patients with major depressive disorder (MDD).
Methods: An experimental study with randomized controlled tried (RCT), was conducted in patients aged above 18 years with MDD from the Outpatient Psychiatric department, King Chulalongkorn Memorial Hospital. There were 42 subjects in total; 21 in experimental group, who received 10-session SSTP with medical treatment as usual (TAU) and 21 in control group who had only the medical TAU. Social functioning was evaluated by using Social Functioning Questionnaire (SFQ) Thai version on week 0 (before treatment) and week10 (after treatment). The effect of SSTP on social functioning after the program between 2 groups was analyzed by using unpaired student *t* - test. $P < 0.05$ was considered as statistically significant.
Results: Forty-two depressed subjects participated in the study. They were not significantly different in baseline of BDI-II score (experimental group 34.52 ± 13.07, control 29.95 ± 9.97). About the medication used in both groups, they received mostly SSRIs antidepressants at the average dosage of sertraline 50 - 100 mg/day. After calculating the mean difference from baseline, the mean of change of the experimental group was significantly higher than that of the control group. The differences of mean of change between the 2 groups was 5.67 with 95% CI 3.14 – 8.20 ($P < 0.01$), especially in the domain of social contacts, and leisure activities functioning of SFQ.
Conclusion: The Social Skills Training Program can help patients with MDD to be enable them to better adjust themselves in their lives, easier to connect to their social networks, and more enjoyable in their lives by better social skills, leading to recover on social functioning.

Keywords: Social Skills Training Program, social skills, social functioning, depression, major depressive disorder.

Major depressive disorder (MDD) is a common major psychiatric disorder,[1] with a lifetime prevalence of about 12.0%,[2] more prevalent in women than men,[3] and affects patients' lives and also their families.[4] Depressive disorder is a disturbance of mood,[5] characterized by four symptom domains: 1) mood symptoms such as feeling of sadness or decreased pleasure or interest; 2) somatic symptoms such as insomnia, change in appetite, weight gain or weight loss; 3) psychomotor symptoms such as psychomotor slowness or retardation; 4) cognitive symptoms such as difficulty thinking and concentrating, or making decision, feeling of worthlessness, guilty feeling; and, 5) interpersonal symptoms such as having social dysfunctions including misunderstanding of

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others' emotions, poor interpersonal communication, and increased sensitivity to social rejection.[6, 7] This leads to various treatment methods of biological and psychosocial treatment including antidepressants, electroconvulsive therapy, psychosocial treatment: cognitive behavior therapy (CBT), interpersonal psychotherapy (IPT), group therapy, family therapy, and social skills training program.[6 - 9]

Previous studies showed that patients with depressive disorder had interpersonal and social dysfunction [10 - 12] such as low assertiveness, being afraid of rejection and criticism. It makes depressed patients have poor social skills, low social support, and more depressed. Antidepressants can help patients to have better sleep, mood, and eating behavior,[8, 13] but did not clearly showed the enhancing social skills to gain better social functions. The social skills training can help the depressed patients and improve their relationships, better social adjustment by increasing assertiveness in depressed patients. [13, 14]

However, there were still limited studies concerning the social skills training program for the depressed patients in Thailand. Therefore, this study aimed to develop the Social Skills Training Program (SSTP) that was suitable for Thai depressed patients, and to evaluate the effect of SSTP on the social functioning in these patients.

Materials and methods

Methods

An experimental study, randomized controlled trial (RCT), was conducted in patients aged above 18 years with major depressive disorder. They were recruited from the Outpatient Psychiatric Department, King Chulalongkorn Memorial Hospital, Bangkok, from October 2018 to January 2019. This study has been approved by the Ethics Committee, the Institutional Review Board (IRB), Faculty of Medicine, Chulalongkorn University (no. IRB 443/61).

All subjects were informed the objectives and method of the study. They volunteered to participate in the study, and gave their written informed consents. The sample size determination was calculated by using the previous research of group interpersonal psychotherapy (IPT) in depressed patients by Siriluck P. The estimated sample size was 42 in total; 21 for experimental group and 21 for control group. The block randomization was performed to allocate the subjects into the experimental and the control group.

The inclusion criteria were major depressive disorder patients, diagnosed by clinicians using Diagnostic and Statistical Manual of Mental Disorders fifth edition (DSM-5), and the score of Beck Depression Inventory-II (BDI-II) Thai version, for at least 20 points. The exclusion criteria were schizophrenia and other psychotic disorders, bipolar disorder, dementias, substance-related disorder, organic mental disorder, and mental retardation, assessed by clinicians and DSM-5 criteria, those who had severe symptoms or were at high risk of suicide, and also subjects who could not follow the entire treatment program. Withdrawal criteria were: patients who left the study and those who could not enter the program for at least 6 consecutive sessions. Drop-out criteria were: patients who lost the contact with the researcher for more than 4 sessions.

The demographic and clinical characteristics was completed by the subjects themselves in the demographic data form and by the researcher in the clinical data form.

About the study, the subjects in the experimental group were provided the weekly 10 sessions with 2-hour duration of the Social Skills Training Program with the medical treatment as usual (TAU), while the subjects in the control group received only the medical TAU from their psychiatrists. The mean dosage of antidepressants used in both groups were also recorded in this study. All the subjects were assessed by the Social Functioning Questionnaire (SFQ) Thai version on at the beginning (week 0), and the ending of the program (week 10). The measure to control other contaminations or co-interventions was informing the subjects and their psychiatrist to avoid providing others psychotherapies or psychosocial intervention programs during the study. Besides, all subjects were reminded to regularly enter the program by telephone to ensure the program compliance.

Intervention program

The Social Skills Training Program was developed and adapted by Jannim V. and Lueboonthavatchai P. from the Theory of Social Skills Enhancement and the Social Skills Training Manual of Bellack AS.[15 - 17] The SSTP was composed of 10 sessions with 2-hour duration. The details of SSTP were displayed in Table 1.

Table 1. Social Skills Training Program (SSTP): Session contents and techniques.

Session	Contents	Techniques
1	- Sharing social difficulties - Accepting self and others' differences of attitude, needs, and behavior	- Self-introspection and self-exposure - Understanding self and others
2 - 4	- Expressive social skills: speech contents, paralinguistics, and nonverbal behaviors	- Didactic technique - Demonstration - Learning and practicing - Role-playing - Group feedback
5	- Difficult social situations including resolving conflicts	- Role-playing and modelling - Psychodrama - Group feedback - Positive reinforcement
6 - 8	- Appropriate grooming, posturing, and expressive personality	- Didactic technique - Modelling - Practicing - Group feedback
9 - 10	- Performance in real-life situations - Recognition of their own social competence	- Problem solving - Practicing - Group discussion and review - Reassurance

SSTP was conducted by Jannim V. the therapist and principal researcher who had experiences in social skills training and personality coaching from IDEO Empowerment School of Soft Skills for at least 12 years. It was conducted in a group format of 10 - 12 members in one group. SSTP starts with self-introduction, sharing their own social difficulties, and learning the differences of attitude, needs, and behavior of themselves and others; then, to increase expressive social skills by learning and applying communications skills such as language using, paralinguistic elements, nonverbal behaviors, muscles control and body movement, and also emotional expression; after then, to improve self-image and self-esteem by grooming, looking, and expressive personality. Finally, to discuss all learning and practicing process, to practice social performance in real-life situations, and to recognize their own social competence.

Measures

The measures were composed of the Demographic and Clinical data form, and the Social Functioning Questionnaire (SFQ) Thai version, namely:

1) Demographic and Clinical data form was used to collect the subject's gender, age, marital status, educational level, occupation, incomes, family history of psychiatric illness. The diagnosis, comorbidity, and average dosages of antidepressants used were also recorded.

2) The *Social Functioning Questionnaire* (*SFQ*) Thai version was developed and translated from the *Social Functioning Questionnaire* of Tyrer P. The questionnaire was widely used to evaluate the patients' social functioning. It is composed of 8 items, used to assess the social functioning in 6 areas:1) work and home activities; 2) financial concerns; 3) relationships with their families; 4) sexual relationships; 5) social contacts; and, 6) leisure activities functioning.It was a self-administered questionnaire. The total scores range from 0 - 24. The higher scores indicate low social functioning, while the lower scores indicate high social functioning. The instrument was already tested and had showed good validity and reliability.[18]

Statistical analysis

The statistical analysis was performed by using SPSS version 22.0. software. The demographic and clinical characteristics of the experimental and the control group were presented by using proportion and percentage with mean and the standard

deviation (SD). Effect of SSTP on social functioning after the program between 2 groups were analyzed by unpaired Student *t* – test. $P < 0.05$ was considered as statistically significant.

Results

All forty-two depressed subjects enter the study program. No any subjects leave the study or lose the contact with the researcher for more than 4 sessions.

The demographic and clinical characteristics in the experimental and the control group were shown on Table 2. Most of them in both groups were females (experimental group 85.7% and control group 81.0%) with the average age of 31.24 ± 12.60 and 28.67 ± 7.10 years respectively. Most of them were single (90.5% and 61.9%) and had Bachelor's degree educational level or above (85.7% and 85.7%) and employed (66.7% and 57.1%) with the average incomes of 19,619 and 10,880 baht/month. Most of them had psychiatric illness in their families (81.0% and 85.7%). The clinical characteristics of the experimental and control group were not significantly different in baseline of BDI-II score (34.52 ± 13.07 and 29.95 ± 9.97). ($P = 0.21$) Some of them had comorbid anxiety disorder (23.8% and 19.0%). Most of them in both groups received SSRIs medication at the average dosage of 50 - 100 ml./day of sertraline.

Table 2. Demographic and clinical characteristics of the depressed subjects in experimental (n = 21) and the control group (n = 21).

Demographic and clinical characteristics	Experimental group (n = 21) n (%)	Control group (n = 21) n (%)	Total (n = 42) n (%)
Gender			
Female	18 (85.7)	17 (81.0)	35 (83.3)
Male	3 (14.3)	4 (19.0)	7 (16.7)
Age (years)			
Mean ± SD	31.24 ± 12.60	28.67 ± 7.10	29.95 ± 10.17
Min, Max	18.0, 69.0	18.0, 44.0	18.0, 69.0
Marital status			
Single	19 (90.5)	13 (61.9)	32 (76.2)
Married	2 (9.5)	3 (14.25)	5 (11.9)
Others	0 (0.0)	5 (23.85)	5 (11.9)
Educational level			
Bachelor's degree and above	18 (85.7)	18 (85.7)	36 (85.7)
Under Bachelor's degree	3 (14.3)	3 (14.3)	6 (14.3)
Occupation			
Employed	14 (66.7)	12 (57.1)	26 (61.9)
Unemployed	7 (33.3)	9 (49.2)	16 (38.1)
Incomes (Baht/month)			
Mean ± SD	19,619 ± 13,455	10,881 ± 12,046	15,250 ± 13,366
Min, Max	0, 40,000	0, 40,000	0, 40,000
Family history of psychiatric illness			
Presence	17 (81.0)	18 (85.7)	35 (83.3)
Absence	4 (19.0)	3 (14.3)	7 (16.7)
Comorbid			
Anxiety disorders	5 (23.8)	4 (19.05)	10 (23.8)
None	16 (76.2)	17 (80.95)	32 (76.2)
Medications			
Antidepressants, mostly SSRIs	16 (76.2)	11 (52.4)	27 (64.3)
Average dosage of sertraline (mg/d)	50 - 100	50 - 100	50 - 100
Anxiolytics and Others	5 (23.8)	10 (47.6)	15 (35.7)
Baseline BDI-II score			
Mean ± SD	34.52 ± 13.07 $^{\Delta}$	29.95 ± 9.97 $^{\Delta}$	32.23 ± 11.71
Min, Max	20, 58	20, 57	20, 58

$^{\Delta}$ $P = 0.21$

Regarding the social functioning, the effect of SSTP, the SFQ score before and after program in both groups were showed in Table 2. After the program, the experimental group had better social functioning (a decrease in SFQ score from 14.47 ± 3.60 to 8.85 ± 5.30) while the control group had no differences.

After calculated the mean differences from baseline, the mean of change of the experimental group was significantly higher than the control group by using unpaired *t* - test. The differences of mean differences between 2 group were 5.67 with 95% CI 3.14 – 8.20 ($P < 0.01$)(Table 3).

Regarding the domains of social functioning, the study shows the effects of SSTP on increasing the social functioning on experimental group in the domain of relationship with family, sexual relationships, social contacts, and leisure activities functioning, especially in the domain of social contacts, and leisure activities functioning (Figure 1).

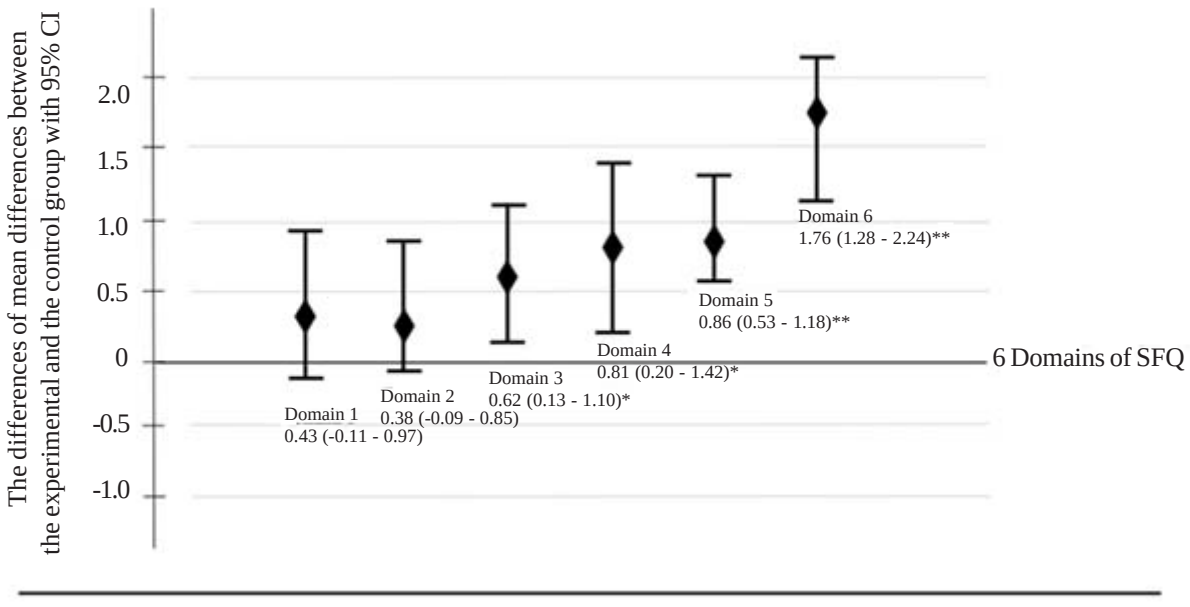
Table 2. The SFQ score of the depressed subjects in the experimental group and control group, before and after the program (n = 42).

SFQ score	Before the program	After theprogram	Mean differences
Experimental group (n = 21)	14.47 ± 3.60	8.85 ± 5.30	5.61 ± 4.479
Control group (n = 21)	13.66 ± 4.72	13.71 ± 3.52	- 0.05 ± 3.15

Table 3. Comparison of mean difference of the SFQ scores between the experimental and control group by unpaired *t* - test.

SFQ score	Mean differences of SFQ score	Differences of mean differences	95% CI of Differences of mean difference lower - upper	*P* - value
Experimental group (n = 21)	5.61 ± 4.48	5.67	3.14 - 8.20	< 0.001**
Control group (n = 21)	- 0.05 ± 3.15	-	-	-

*$P < 0.05$, **$P < 0.01$



* $P < 0.05$, ** $P < 0.01$

Figure 1. Effect of SSTP on the domains of SFQ in depressed patients between the experimental and control group:
Domain 1: Work and home activities;
Domain 2: Financial concerns; Domain 3: Relationship with family;
Domain 4: Sexual relationships; Domain 5: Social contacts; and,
Domain 6: Leisure activities.

Discussion

From the study's findings, the demographic and clinical characteristics at baseline of the subjects between the experimental and control group were comparable by randomization. The results showed that 10-week SSTP had the effect of increasing social functioning in depressed patients in the experimental group, but this effect did not show in the control group. The SSTP had increasing social functioning on the domain of relationship with family, sexual relationships, social contacts, and leisure activities functioning, especially in the domain of social contacts, and leisure activities functioning. This showed that adding-on SSTP with antidepressant help to increase social functioning in the depressed patients. This result was concordant with previous studies concerning social skills training in depressed patients. For example, the study of Karen C.[19] showed that social skills training helped increase the depressed patients' assertiveness. Reed MK. [20] found that social skills training helped to improve the depressed adolescents' level of functioning. Also, Bellack AS, *et al.* [21] and Thase ME, *et al*. [22] was found that social skills had the great improvement on measures of the depressed patients' social skills and social functioning.

From this study, SSTP was developed from the concept of social skills of Bellack AS, including: 1) expressive skills; 2) receptive skills; 3) associated cognitive factors; 4) social skills in specific situations; and, 5) factors affecting performance in social situations. SSTP focuses on the understanding his/her own's and others' differences in attitudes and behaviors, increasing sense of self-respect and assertiveness. Later, SSTP helps increase the expressive social skills by learning to apply the speech content, paralinguistic elements such as voice, volume, tone, pitch, nonverbal behaviors such as proxemics, body movement, eyes contact, and facial expression. After that, practicing in the difficult social situations such as job interview, negotiation, work presentation, and resolving interpersonal conflicts. Almost finally, the therapist increased the patients' self-confidence and self-image by improving their expressive personality, grooming, and posture. Finally, the therapist prepared the social performance in real-life situations before ending the program by using techniques of modelling, role-play, feedback and rehearsal and help the patients to increase recognition of their own social competence. All these social skills helped the depressed patients to increase the assertiveness and clear communications, reduce sense of undeserving or fear of rejection and criticism, increase sense of self-control, leading to increase social functioning including relationship with family, sexual relationships, social contacts, and leisure activities functioning.

The limitations of the study are that it did not evaluate the long-term effects of the SSTP on the depressed patients' global functioning and their well-being, and also the scores of depressions. From previous studies, the effects of psychosocial interventions mostly appeared at the 12^{th} - 16^{th} week of the program. Therefore, further studies to evaluate the effects of SSTP on the global functioning and depression on the 12^{th} - 16^{th} weeks are recommended.

Conclusion

The Social Skills Training Program (STTP) can help the patients with major depressive disorder (MDD) to adjust themselves, to have better social functioning, easily connect to their social networks, and enjoy in their lives, lead to recover their social functioning.

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Conflict of interest

The authors, hereby, declare no conflict of interest.

References

1. World Health Organization. Depression and other common mental disorders: global health estimates. Geneva: WHO; 2017.
2. Rihmer Z, Angst J. Mood disorder: epidemiology. In: Sadock BJ, Sadock VA, editors. Kaplan & Sadock's comprehensive textbook of psychiatry. Vol.1. 8^{th} ed. Philadelphia: Lippincott Williams & Wilkins; 2005. p. 1575-82.
3. American Psychiatric Association. 2000. Diagnostic and statistical manual of mental disorders. 4^{th} ed. Washington, DC: American Psychiatric Association; 2000.

4. Jenkins JH, Schumacher JG. Family burden of schizophrenia and depressive illness. Specifying the effects of ethnicity, gender and social ecology. Br J Psychiatry 1999;174:31-8.
5. Alexopoulos GS, Borson S, Cuthbert BN, Devanand DP, Mulsant BH, Olin JT, et al. Assessment of late life depression. Biol Psychiatry 2002;52:164-74.
6. Lueboonthavatchai O, Lueboonthavatchai P, editors. Psychosocial treatment for depressive disorder. Bangkok: Tana Press; 2010.
7. Kupferberg A, Bicks L, Hasler G. Social functioning in major depressive disorder. Neurosci Biobehav Rev 2016;69:313-32.
8. Kasantikul D. Depression. 3rd ed. Bangkok: Numaksorn Publishing;1999.
9. Lotrakul M, Sukanit P. Ramathibodi essential psychiatry. 4th ed. Bangkok: Department of Psychiatry Faculty of Medicine Ramathibodi Hospital; 2558.
10. Brady JP. Social skills training for psychiatric patients, II: Clinical outcome studies. Am J Psychiatry 1984; 141:491-8.
11. Nueangjaknak A, Suppapitiporn S. Depression in patients with type 2 diabetes attending at Chao Phya Abhaibhubejhr Hospital. Chula Med J 2019;3:163-9.
12. Hallgren M, Lundin A, Tee FY, Burstrom B, Forsell Y. Somebody to lean on: Social relationships predict post-treatment depression severity in adults. Psychiatry Res 2017; 249:261-7.
13. Panya S, Dangdomyouth P, Lueboonthavatchai P. The effect of group interpersonal psychotherapy on depression among patients with depressive disorder. J Psychiatr Assoc Thai 2015;60 (Pt 2):99-110.
14. Amital D, Fostick L, Silberman A, Beckman M, Spivak B. Serious life events among resistant and non-resistant MDD patients. J Affect Disord 2008; 110:260-4.
15. Bellack AS, Hersen M, Himmelhoch JM. Social skills training for depression. In: Van Hasselt VB, Hersen M, editors. Sourcebook of psychological treatment manuals for adult disorders. Boston, MA: Springer; 1996. p.179-200.
16. Jackson HJ, Moss JD, Solinski S. Social skills training: an effective treatment for unipolar non-psychotic depression? Aust N Z J Psychiatry 1985;19:342-53.
17. Segrin C. Social skills deficits associated with depression. Clin Psychol Rev 2000;20:379-403.
18. Tyrer P, Nur U, Crawford M, Karlsen S, McLean C, Rao B, et al. The Social Functioning Questionnaire: a rapid and robust measure of perceived functioning. Int J Soc Psychiatry 2005;51:265-75.
19. Wells KC, Hersen M, Bellack AS, Himmelhoch J. Social skills training in unipolar nonpsychotic depression. Am J Psychiatry 1979;136:1331-2.
20. Reed MK. Social skills training to reduce depression in adolescents. Adolescence 1994;29:293-302.
21. Bellack AS, Hersen M, Himmelhoch J. Social skills training compared with pharmacotherapy and psychotherapy in the treatment of unipolar depression. Am J Psychiatry 1981;138:1562-7.
22. Thase ME, Hersen M, Bellack AS, Himmelhoch JM, Kornblith SJ, Greenwald DP. Social skills training and endogenous depression. J Behav Ther Exp Psychiatry 1984;15:101-8.