



SOCIAL SKILLS TRAINING AS A PSYCHOSOCIAL INTERVENTION TO IMPROVE SOCIAL FUNCTIONING IN SCHIZOPHRENIA: A LITERATURE REVIEW

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ABSTRACT

Social functioning is an individual's ability to interact adaptively, perform social roles, and engage in social activities in accordance with prevailing norms. In patients with schizophrenia, social functioning often declines due to cognitive, affective, and motivational impairments that accompany the course of the illness. This systematic review aims to evaluate the effectiveness of Social Skills Training interventions in improving various aspects of social functioning, including communication skills, social interaction, social roles, and participation in social activities. This review follows the PRISMA-2020 guidelines. A systematic search was conducted on the Scopus, PubMed, ProQuest, ScienceDirect, and EBSCO databases for English-language studies published between 2021 and 2025. A combination of keywords was used to form the search string, including "Social Skill Training" OR "SST" AND "Social functioning" OR "interpersonal functioning" OR "social performance" AND "Schizophrenia". Boolean operators 'AND' and "OR" were used to narrow the results. Quality assessment was conducted independently using the Joanna Briggs Institute (JBI) checklist. The synthesis of the five research articles analyzed showed that Social Skills Training (SST) had a positive impact on improving the social functioning of schizophrenia patients in various service contexts and patient characteristics. The studies reviewed consisted of two studies with a Randomized Controlled Trial (RCT) design and three quasi-experimental studies, with sample sizes varying from small to medium. All studies reported an increase in social functioning after the provision of SST intervention, either as a single intervention or in combination with standard therapy. Social Skills Training (SST) has been proven effective in improving the social functioning of schizophrenia patients, including communication skills, social interaction, social roles, and participation in social activities.

Keywords: psychiatric nursing; psychosocial intervention; schizophrenia; social functioning; social skills training

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INTRODUCTION

Schizophrenia is a chronic mental disorder characterized by disturbances in thinking, perception, affect, and behavior that persist over a long period of time and have a significant impact on the quality of life of those affected (Stuart, 2022). This disorder affects approximately 0.4–1% of the world's population and is one of the leading causes of psychosocial disability. The impact of schizophrenia is not only seen in clinical aspects, but also in an individual's ability to function socially within their family and community (WHO Team, 2021). The symptoms of schizophrenia are not limited to hallucinations and delusions, but also include persistent social dysfunction (Lemmers-Jansen et al., 2023). Patients often experience difficulties in establishing interpersonal relationships, maintaining effective communication, and participating in social life. This condition leads to limited social roles and a decline in overall quality of life (Yusuf, A.H & , R & Nihayati, 2019).

Social functioning is an individual's ability to interact adaptively, perform social roles, and engage in social activities in accordance with prevailing norms. In patients with schizophrenia, social functioning is often impaired due to cognitive, affective, and motivational disturbances that

accompany the course of the illness (Yilmaz Karaman et al., 2020). One of the most common social functioning problems found in schizophrenia patients is social isolation. Patients tend to withdraw, avoid interaction, and show a decline in initiative to connect with others. This social isolation not only worsens the patient's psychological condition, but also hinders the long-term social recovery process (Jannim & Lueboonthavatchai, 2020).

In addition to social isolation, communication barriers are a prominent problem. Schizophrenic patients often have difficulty expressing their thoughts, understanding messages from others, and maintaining meaningful conversations. These barriers have a direct impact on the quality of interpersonal relationships and increase the risk of social exclusion (Ose et al., 2023). A decline in social functioning is also a serious consequence of schizophrenia. Many patients lose the ability to fulfill their roles as family members, workers, or members of the community (Suhermi et al., 2024). This inability to maintain social roles contributes to increased dependence of patients on family and mental health services (Firmawati et al., 2024).

The social functioning problems of schizophrenia patients are further complicated by the stigma attached to mental disorders. Stigma causes patients to experience discrimination, social rejection, and low acceptance in society. This condition exacerbates social isolation and hinders psychosocial rehabilitation efforts (Khalaf et al., 2023). In psychiatric nursing practice, the treatment of schizophrenic patients cannot focus solely on pharmacological therapy. Although antipsychotic drugs are effective in controlling psychotic symptoms, social functioning often does not improve optimally if not accompanied by appropriate psychosocial interventions (Widayati et al., 2023). Psychosocial interventions play an important role in helping patients redevelop social skills and improve social adaptation abilities. This approach includes various forms of therapy aimed at improving the daily functioning and quality of life of patients with schizophrenia (Larasati, 2020).

One widely used psychosocial intervention is Social Skill Training (SST). SST is a structured therapy designed to improve social skills through communication exercises, role play, modeling, and systematic feedback (Brando et al., 2021). The SST approach focuses on learning adaptive and applicable social behaviors in everyday life. Patients are trained to recognize social situations, respond appropriately, and build confidence in interacting with others (Akbar et al., 2020). Theoretically, SST is rooted in social learning and behavioral theories that emphasize that social skills can be learned and improved through repeated practice and positive reinforcement. This approach is particularly relevant in the psychosocial rehabilitation of patients with schizophrenia (Addington et al., 2023).

Various studies show that SST has a positive impact on the communication and social interaction skills of schizophrenia patients (Aruldass et al., 2022). However, findings related to increased social roles and social participation still show variation between studies, depending on the design and duration of the intervention (Vadivel et al., 2024). Meta-analyses and systematic reviews report that SST has a moderate effect on the social functioning of schizophrenia patients, although the quality of evidence varies due to differences in research methodology. This indicates the need for careful interpretation of results in clinical application (Sriy H & Mustikasari, 2023)(Laws et al., 2018).

In addition, several studies have mentioned that combining SST with other psychosocial interventions, such as psychoeducation or cognitive behavioral therapy, can provide more optimal results in improving the social functioning of schizophrenia patients (Lestari et al., 2023). Based on these conditions, it can be understood that although Social Skills Training has been widely applied as a psychosocial intervention to improve the social functioning of schizophrenia patients, the available empirical evidence is still scattered and shows varying results. Differences in research design, intervention duration, sample characteristics, and social functioning measurement instruments cause inconsistencies in findings between studies. This situation has the potential to raise doubts about the overall effectiveness of SST and limit its optimal use in psychiatric nursing practice. Therefore, a study is needed that can systematically summarize and synthesize the results

of these studies in order to obtain a more comprehensive picture of the effect of SST on the social functioning of schizophrenia patients.

In line with these needs, this literature review aims to integrate scientific evidence related to the benefits of Social Skills Training in improving various aspects of social functioning, including communication skills, social interaction, social roles, and participation in social activities. The results of this review are expected to serve as a basis for strengthening evidence-based mental health nursing practices, particularly in the selection of effective, structured psychosocial interventions that are tailored to patient needs. In addition, this literature review also contributes as a scientific reference for the development of clinical guidelines, improvement of mental health service quality, and determination of more focused and sustainable future research directions.

METHOD

Researchers conducted a systematic review in accordance with the 2020 PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) checklist to ensure methodological accuracy and transparency. A systematic search was conducted in several electronic databases to identify studies reviewed to identify social skill training therapy technologies to improve social functioning, including Scopus, PubMed, ProQuest, Science Direct, and EBSCO. The search strategy followed the Population, Intervention, Comparison, and Outcome (PICO) framework (P) consisting of patients with schizophrenia undergoing treatment at a psychiatric hospital. The intervention (I) was structured social skill training (SST) therapy, the comparison (C) was a control group of schizophrenia patients who did not receive SST or only received standard care/routine hospital therapy, and the outcome (O) was an improvement in patients' social functioning, including communication skills, social interaction, social roles, and participation in social activities. A combination of keywords was used to form the search string, including "Social Skill Training" OR "SST" AND "Social functioning" OR "interpersonal functioning" OR "social performance" AND "Schizophrenia". Boolean operators 'AND' and "OR" were used to narrow the results. The search was limited to English-language publications from 2021 to 2025. Studies were included if they 1) focused on patients with schizophrenia, 2) applied SST intervention, 3) measured social functioning, including communication skills, social interaction, social roles, and participation in social activities, and 4) were published in English. Exclusion criteria include: 1) studies using non-schizophrenic populations, 2) articles that do not evaluate the desired outcomes, (3) non-English studies, and (4) studies without access to the full text.

A careful data extraction process was implemented using the Mendeley application. The extracted data was cataloged in CSV format using a standard extraction form. The database search was conducted from 2021 to 2025, focusing on articles published in the last 5 years, full text, and written in English. Reviewers followed the JBI Manual for Evidence Synthesis to ensure consistency. Each study was assessed based on clarity of causality, similarity of participants, control of confounding factors, reliability of outcome measures, and completeness of follow-up and statistical adequacy. Responses were rated as "Yes," "No," "Unclear," or "Not applicable." After critical appraisal, data from included studies were extracted and synthesized descriptively. Reviewers analyzed findings to identify common themes related to the impact of social skills training therapy on improving the social functioning of patients with schizophrenia. For each included study, data were extracted, validity and quality were assessed, and the work of each researcher was verified. The quality of the articles was evaluated based on the Critical Appraisal Skills Program (2020) randomized controlled trial checklist. In this checklist, quality assessment focused on study design, methodology, results, and whether the results were applicable (Table 1).

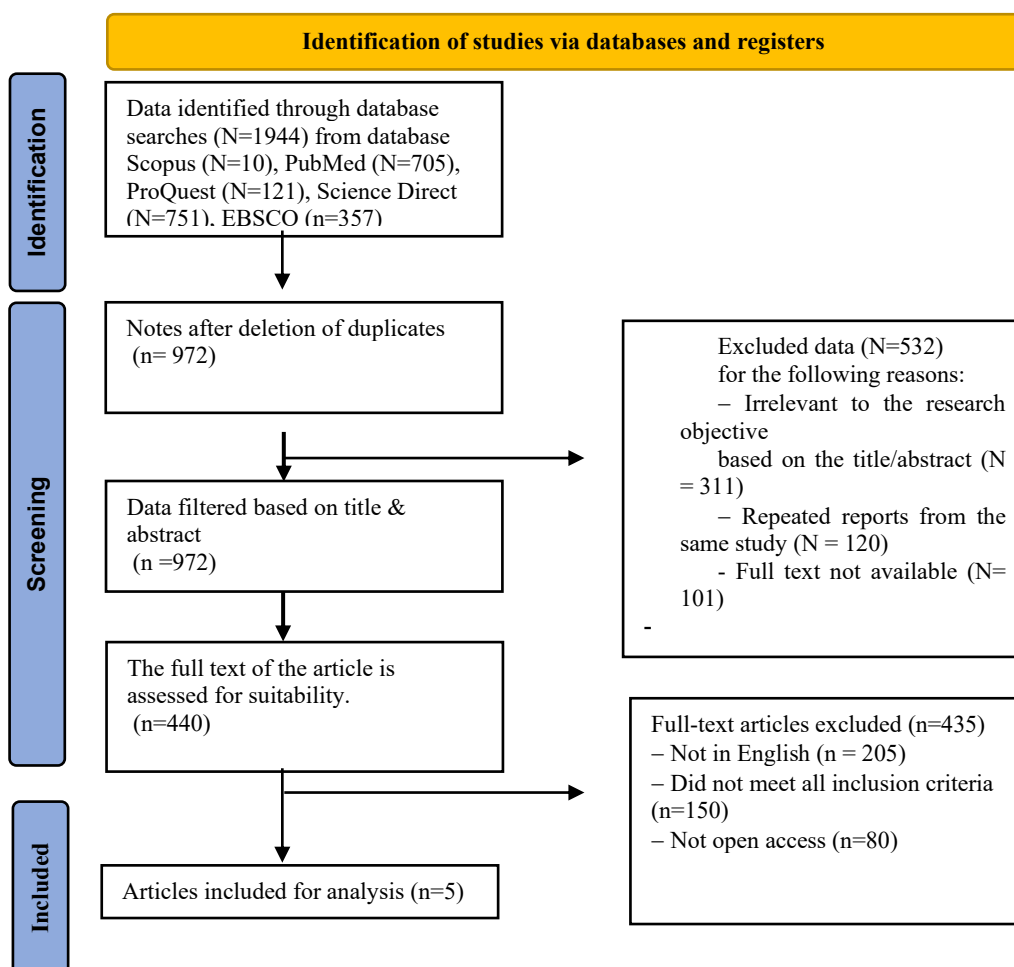
Based on the methodological quality assessment using the JBI criteria, all reviewed studies demonstrated good methodological quality. All articles reported a clear population, appropriate intervention and comparator, clear outcome measures, randomization systems, and adequate inclusion and exclusion criteria. Intervention effects were consistently reported, and all studies confirmed the intervention's clinical benefits. However, most studies did not report blinding of

investigators and data analysts, and confidence intervals were not included, with the exception of one study (Addington et al., 2023) (Lu et al., 2022). Furthermore, no studies reported cost analyses. Nevertheless, all interventions were considered to have high potential for clinical application, particularly as non-pharmacological interventions to improve the social functioning of patients with schizophrenia. This systematic literature review included intervention studies. According to the Joanna Briggs Institute (Institute., 2014), the highest level of evidence for effectiveness is experimental design. All articles reviewed randomized controlled trials, which fall into group 1c.

Table 1.
Article quality assessment

Detail	Article				
	Ali,Samah (2025)	Addington et al. (2023)	Baskaran et al.	Ali,Samah (2025)	Addington et al. (2023)
Is the population clear?	Yes	Yes	Yes	Yes	Yes
Has the intervention been administered?	Yes	Yes	Yes	Yes	Yes
Has a control group been selected?	-	Yes	Yes	Yes	Yes
Have the results been measured?	Yes	Yes	Yes	Yes	Yes
Is the system randomized?	-	Yes	Yes	Yes	Yes
Inclusion/exclusion?	Yes	Yes	Yes	Yes	Yes
Are there blind participants?	-	-	-	-	-
Are the investigators blind?	-	Yes	Yes	-	-
Is the analysis blind?	-	Yes	Yes	-	-
Are the effects of the intervention reported?	Yes	Yes	Yes	Yes	Yes
Are confidence intervals reported?	-	Yes	-	-	-
What are the benefits of the trial?	Yes	Yes	Yes	Yes	Yes
Is there a report on the costs?	-	-	-	-	-
Can the results be applied?	Yes	Yes	Yes	Yes	Yes

Prisma



RESULT

Tabel 2.
 Characteristics of the literature included in the systematic review (n= 6)

Author	Research Design Sample Location	Intervention	Instrument	Main Outcome	Level of evidence
(Ali et al., 2025)	<ul style="list-style-type: none"> - a quasi-experimental research design (one group pre/post-test) - 50 patients diagnosed with schizophrenia - Egypt 	Structured SST program. Each subgroup participated in 13 sessions, including four theoretical and nine practical sessions. Theoretical sessions lasted between 60-90 minutes..	Quality of Life & Social Function Scale	Most schizophrenic patients in this study initially exhibited low social skills before the program; however, this proportion declined to less than one-fifth after the program, showing a statistically significant improvement in all aspects of social skills. Similarly, while fewer than one-fifth of the participants initially reported a good quality of life, this figure rose to approximately two-thirds following the program, with significant improvements in all quality-of-life domains except for thought and speech, orientation and insight. Furthermore, 66% of the patients experienced a high stigma level before the program, which decreased to one-third afterward, with significant reductions across all stigma subscales. Additionally, a highly statistically significant correlation was found between overall scores of social skills, quality of life, and stigma across the program phases ($p \leq 0.001$).	1c
(Addington et al., 2023)	<ul style="list-style-type: none"> - Randomized Controlled Trial - 203 participants - Canada 	an intervention that integrates CBT and SST which has been well described in a practical treatment manual, CBSST is an 18-week group comprised of 3 modules; (1) Cognitive Skills, (2) Social Skills, and (3) Problem-Solving Skills. Each module includes 6 weekly group sessions and allows rolling entry at the beginning of each module.	Global Functioning: Social & Role	There were no significant differences between the 2 groups at base-line or either of the 2 follow-ups. However, at follow-ups, in each group there were significant improvements in clinical symptoms. These could not be attributed to group treatment since there was no control or wait-list group.	2c

Author	Research Design Sample Location	Intervention	Instrument	Main Outcome	Level of evidence
(Baskaran et al., 2023)	– quasi-experimental – 2 groups – 20 participant – India	They were assigned to two groups of 20 each, where one underwent SSP intervention for 7 days, and the other routine care.	Vellore assessment of social performance (VASP)	In the routine care group, majority of the patients had poor skills both pre-test (70%), and post-test (40%, $p = 0.083$), but in the interventional group, majority of the patients exhibited poor skills (60%) pre-test and post SSP majority of them scored significantly higher (85%, $p = 0.022$) VASP scores. Mean scores were significantly different with age ($F = 4.130$, $p = 0.01$) in intervention and with duration of illness ($F = 3.748$, $p = 0.045$) in routine care groups.	1c
(Vadivel et al., 2024)	– quasi-experimental – 2 groups – 30 participant – Saudi arabia	Participants in the experimental group received social skills coaching for eight weeks, while participants in the control group received traditional occupational therapy interventions.	consisting of the Canadian Activity Performance Index (COPM) and a 36-item short survey (SF-36), were used to measure quality of life and functional performance.	There was a statistically significant difference between the pre- and post-test scores of the COPM and SF-36 survey in both the experimental and control groups. In addition, the quality of life and functional performance of the patients in the experimental group improved significantly compared to those in the control group	1c
(Giuliani et al., 2024)	– Randomized Controlled Trial – 2 groups – 20 participant – Italy	Social Cognition Remediation (mengandung elemen SST)	- Positive and Negative Syndrome Scale (PANSS) - Personal and Social Performance (PSP)	There was a significant improvement in social functioning and real-life functioning compared to standard care.	2c

The synthesis of the five research articles analyzed shows that Social Skills Training (SST) has a positive impact on improving the social functioning of schizophrenia patients in various service contexts and patient characteristics. The studies reviewed consisted of two studies with a Randomized Controlled Trial (RCT) design (Giuliani et al., 2024),(Addington et al., 2023) dan three quasi-experimental studies (Ali et al., 2025)(Baskaran et al., 2023)(Vadivel et al., 2024), with sample sizes varying from small to medium. All studies reported an improvement in social functioning after SST intervention, either as a single intervention or in combination with standard therapy.

SST interventions in these studies were generally administered in a structured manner through group or individual sessions, with varying durations and frequencies, ranging from several weeks to several months. The instruments used to measure social functioning also varied, including scales of global social functioning, social performance, interpersonal relationships, social roles, and activities of daily living. Despite differences in design and instruments, the results of the studies consistently showed that SST contributed to improvements in the social functioning of patients with schizophrenia.

From a methodological quality perspective, most studies had moderate levels of evidence, with limitations in randomization and blinding. However, the existence of two RCT studies with high methodological quality reinforced the findings that SST was effective in significantly improving social functioning. Overall, these results indicated that SST was a potential and applicable psychosocial intervention in psychiatric nursing care.

DISCUSSION

Communication Skills

Social Skills Training (SST) has been consistently shown to improve the verbal and nonverbal communication skills of patients with schizophrenia. Research (Baskaran et al., 2023) shows that patients who participated in SST demonstrated a significant improvement in social functioning scores, reflecting an improvement in basic communication skills, such as expressing needs, listening, and responding effectively in clinical social interactions. This improvement is likely due to the fact that SST specifically targets dialogue skills through role-play, modeling, and feedback—techniques that have been proven to improve verbal communication skills and adaptive social response interpretation (Ratna et al., 2024).

In addition, literature reviews show that SST interventions that incorporate group communication training expand patients' capacity to understand and respond to social cues. Meta-analysis results indicate that SST can significantly improve patients' communication skills compared to control groups, including improvements in basic conversation skills and more appropriate affective expressions in real social contexts (Wang et al., 2024). These findings are consistent with the principle of social learning that communication skills can be learned through structured practice and direct feedback, not just through pharmacological therapy alone.

Other studies have also shown that improved communication skills through SST are associated with a reduction in negative symptoms that often hinder social engagement. The ability to initiate and maintain verbal interactions provides a foundation for broader social engagement, enabling patients to more effectively build meaningful interpersonal relationships. Thus, improvements in verbal and nonverbal communication are not only technical in nature but also affect overall social participation (Ose et al., 2023).

Social Interaction

The results of the evidence table show that SST consistently improves social interaction in schizophrenic patients, which is one of the most affected aspects of social functioning. Research (Ali et al., 2025) reported a significant increase in social functioning scores, reflecting patients' ability to engage in social interactions more smoothly after SST, including the ability to respond socially, share experiences, and engage in more meaningful conversations. This improvement indicates that social skills training can reduce communication barriers that previously hindered the quality of interpersonal relationships.

Additionally, other literature suggests that SST helps patients overcome social anxiety and psychological barriers that often prevent them from interacting more widely. A quasi-experimental study found that SST contributed to increased social engagement in group and community contexts, including increased frequency of social contact and courage to initiate new interactions (Granhölm et al., 2022). These changes relate to the patient's ability to recognize social cues, accept feedback from peers, and improve their behavioral responses in real-life situations, which in turn increases their social confidence.

In addition, literature studies show that SST interventions that focus on interpersonal skills also contribute to the reconstruction of patients' social networks. These improvements in social interaction are seen not only in a clinical context but also in everyday life, such as in family relationships and involvement in community social activities (Lu et al., 2022). This indicates that the impact of SST is not only temporary, but also expands patients' social abilities in various real

interpersonal situations.

Social Roles

SST not only improves simple interpersonal skills but also impacts patients' ability to perform more complex social roles in daily life. In studies (Vadivel et al., 2024) Improvements in social functioning also include enhancing patients' ability to carry out social activities and fulfill their responsibilities within their family and community. This indicates that SST strengthens patients' capacity to meet social expectations in their roles as family members, peers, or community members.

Additionally, supplementary literature suggests that improved social roles are often associated with increased functional independence. For example, studies evaluating SST in the context of social rehabilitation found that patients who participated in training demonstrated improved ability to apply learned skills in daily life tasks, including social scheduling, relationship problem-solving, and taking initiative to participate in routine social tasks (Brando et al., 2021). These findings are consistent with the principle that effective SST helps patients not only learn communication techniques but also understand more complex social role expectations. Finally, evidence from meta-analysis studies shows that SST can reduce negative symptoms that often impact social roles, such as apathy and social withdrawal. These behavioral changes broaden the scope of patients' social role functioning by enabling them to resume meaningful roles, both in family settings and in productive activities such as work or education. Thus, SST supports broader social integration and increased patient contribution to their social lives (King et al., 2023)

Participation in Social Activities

The review results also show that SST facilitates increased participation in social activities, which is the culmination of the social skills learned. In the study (Giuliani et al., 2024) The improvement in social function scores reflects the patient's ability to be more actively involved in social activities, such as group interactions, communal activities, and routine activities that require social coordination. This shows that SST not only improves theoretical skills but also encourages the application of skills in real-life situations. Additional literature supports these findings by showing that SST can increase patients' motivation to participate in community social activities. Another quasi-experimental study found that patients trained through SST showed an increase in the number of important social activities such as group work, family visits, and involvement in community activities after the intervention was completed (Lestari et al., 2023). This improvement reflects the success of SST in overcoming emotional and psychological barriers that previously hindered social engagement. Furthermore, the positive impact of SST on social participation is associated with an improvement in the overall quality of life of patients. When patients feel more competent in social contexts, they are more likely to feel valued and accepted in social situations, which in turn strengthens their engagement in various social activities (Putra, 2024). Therefore, SST not only improves specific skills but also provides patients with a foundation for a more active and productive social life.

CONCLUSION

Social Skills Training (SST) has been proven effective in improving the social functioning of schizophrenia patients, including communication skills, social interaction, social roles, and participation in social activities. Structured SST interventions, whether in group or individual formats, can help patients develop applicable social skills and contribute to comprehensive psychosocial recovery. Although most studies have moderate levels of evidence, the consistency of findings indicates that SST is a relevant psychosocial intervention that should be integrated into psychiatric nursing care. Therefore, it is recommended that SST be applied more widely and continuously in clinical practice and combined with pharmacological therapy and other rehabilitative interventions.

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