EFFECTIVENESS SOCIAL SKILLS TRAINING WITH PEERS PROGRAMS FOR INDIVIDUALS AUTISM SPECTRUM DISORDER: A SYSTEMATIC REVIEW

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Abstract: Social skills are adaptable skills that enable the individual to get along with friends. Social skills are important for developing relationships, resolving conflicts, and encouraging self-reliance; otherwise, less social skills can lead to unhealthy social relationships, inability to resolve interpersonal conflicts, and social isolation. Decreasing social skills is a major characteristic of individuals with ASD. The purpose of this article was to evaluate the effectiveness of social skills training programs on PEERS programs to increasing social skills individuals with ASD. The keywords to database search was "social skills training, social skills intervention, PEERS, Autism Spectrum Disorder". According to the journal article that already found and reviewed from Google Scholar, Proquest, and Science Direct. This search is limited from 2009 to 2017. Most of the journals in this review indicate that social skills training based on a group of PEERS can be intervention in order to improve social skills individuals with Autism Spectrum Disorder. Social Skills Training interventions on the PEERS program can be used to increasing social skills and self-supporting individuals with ASD.

1 INTRODUCTION

Autism Spectrum Disorder (ASD) is described as a disorder of neurodevelopmental that affects brain chemistry and/or structure of the brain (Harvard Medical School, 1997) and is characterized by a deficit persistent in social communication and social interaction in some context, and patterns of behavior, interests, and activity limitations (Erena et al, 2015). Deficits in reciprocity, social emotional, deficits in communicative behavior used for social interaction and deficits in developing, maintaining, and understanding the relationship are a major problem in person with ASD (American Psychiatric Association, 2013). The effect of such adverse social interaction deficits can occur in children to adults (McCoy et al, 2016).

Social deficits and a poor quality of friendship is the common areas of decreased person with ASD. Specific social deficiencies in individuals with ASD often include poor social communication, impaired social cognition, and a lack of understanding of social cues (Laugeson et al, 2012). Individuals with ASD exhibit social deficits such as inadequate non-verbal behavior including eye contact, gestures, posture, and facial expressions, this due to lack of emotional social reciprocity, lack of empathy, limited interaction with peers, and lack of interest in social interaction, lack of mutual concern which is the major point in socialization (Erena et al, 2015). A person with ASD may also experience social problems, communication and interaction in everyday life, and more often than with their normal development. Therefore, appropriate interventions is very important to use to improve communication skills and social interaction of individuals with ASD. Treatment using the method of demonstration, role play, social coaching and performance feedback during a workout.

Social skills training are often used at this time and become a popular method to help individuals ASD adapt to their social environment (Laugeson et al, 2012). Social skills group are instructional arrangement, although the minimum indicated in the
existing literature, social skills groups can be used in intensive behavioral intervention in individuals with ASD. This approach brings together a group of individuals with ASD who meet one or more times a week to learn and practice social behavior with each other with the help of the facilitator (Plavnick et al, 2015).

One intervention group-based social skills training that proved effective is Program for the Education and Enrichment of Relational Skills (PEERS), a program of social skills in teenagers ASD assisted by parents. Learning based training principles of friendship child. Interventions is done 90 minutes each week for 12-14 weeks (Laugeson & Frankel, 2010). Parents and teens attend concurrent sessions, in different places.

Didactic lessons include (a) the ability to speak, including verbal and nonverbal forms of communication; (b) forms of electronic communication, including phone calls, text messages, instant messages, e-mail, and online safety; (c) develop a network of friends, including identifying peer groups and extracurricular activities for the source of potential friends; (d) the appropriate use of humor, including learning to pay attention to the feedback of humor than others; (e) the entry peer strategies, including how to join in the conversation with other teens; (f) peer exit strategy, including how to assess receptivity over the peer entry and what to do when this attempt failed; (g) the behavior of the host / guest is good for getting together, including how to organize a successful meeting with friends; (h) good sportsmanship, including how to behave appropriately during games and sports; (i) strategies for dealing with temptations, including differentiating tempting embarrassing feedback and handle verbal wriggling through the use of appropriate behavioral response; (j) deal with bullying, including identifying coping strategies and physical threats from others; (k) to change its reputation, including a long-term strategy to change the bad reputation; (l) settle the argument with a friend, includes specific steps for solving disagreements; and (m) to manage rumors and gossip, including behavioral strategies to minimize the damage caused by gossip (Laugeson & Frankel, 2010).

2 METHODS

This review production with found journal articles with PICO framework, the study population is individuals with ASD, intervention research is SST with PEERS program. The keywords of “social skills training, social skills intervention, PEERS, Autism Spectrum Disorder”. A literature search was conducted in some major databases such as Google Scholar, Proquest and Science Direct. Year limitation used was from 2009 until 2017. From the results obtained 20 journals, and selected eight journals that meet the inclusion and exclusion criteria. The articles inclusion criteria were: 1) RCT study design, 2) the treatment given is SST with PEERS program, 3) the sample is teens and young adults with ASD, from the journal subsequently elected to do the review.

The parameters used to determine the social skills such us: Kaufman Brief Intelligence Test-Second Edition (kbit-2; Kaufman & Kaufman, 2005), the Vineland Adaptive Behavior Scales-Second Edition, Survey Form (Vineland-II; Sparrow, Balla, & Cicchetti, 2005), Social Communication Questionnaire (SCQ; Rutter, Bailey, & Lord, 2003), the Social Skills Rating System (SSRS; Gresham & Elliott, 1990), the Social Responsiveness Scale (SRS; Constantino, 2005), The Quality of Play Questionnaire (QPQ; Frankel & Mintz, 2011), Test of Adolescent Social Skills Knowledge (TASSK; Laugeson & Frankel, 2010), Friendships and Interventions Interview (FII; see Appendices A and B).

3 RESULTS

Laugeson et al, 2009 in a study performed on 30 autistic adolescents aged 13-17 years. Respondents were randomly divided into two groups, the treatment group (n = 17), and wait for the control group (n = 16), each group consists of about 7 participants. Program for the Education and Enrichment of Relational Skills (PEERS) consisted of 12 sessions of 90 minutes per session for 12 weeks, where parents and teens attend concurrent sessions. Measurements were performed pre and post at week 1 and week 12. The control group was waiting to do after completion of the treatment groups at week 12.

Result the interaction of treatment conditions in the treatment group, there are three scales of measurement in adolescents showed significant results that [TASSK, F (1,31) = 30.62, p < 0.0001; QPQ Host, F (1,31) = 9.42, p < 0.025; FQS, F (1,31) = 4.38, p < 0.05], and one scale of measurement for the elderly [SSRS Social Skills, F (1,31) = 4.24, p < 0.05], and approached significance for the two outcome measures parents (SSRS Problem Behavior
and QPQ Guest, p's > 0.10). Newman Kuels post-hoc test (winer 1971) treatment group improved significantly on the knowledge of social skills on a scale TASSK (q3 = 17.76, p < 0.01), whereas no Delayed Treatment Control Group (q3 = 2.11, ns.). Significant improvements to the get-togethers hosted treatment group (q3 = 9.37, p < 0.01), while the Delayed Treatment Control group did not (q3 = 2.23, ns). Friendship quality to decrease significantly in the Delayed Treatment Control Group (q3 = 3.80, p < 0.05), whereas the increase in the average quality of friendship between treatment groups was not significant (q3 = 2.11, ns).

Time Interaction treatment conditions for social skills SSRS scale is a scale of parents who reported reaching significance [F (1,31) = 4.24, p < 0.05]. Post-hoc test to make sure that the treatment group improved significantly on the social skills of parents (q2 = 7.23, p < 0.01), whereas no Delayed Treatment Control group (q2 = 1.44, ns).

Study Gantman et al. 2012, using a randomized controlled design (RCT), which aims to test effectiveness evidence-based interventions social skills with peers programs, with 17 young adult participants ASD aged 18-23 years, 12 men and 5 women. All present and stay with their caregivers.

This study was conducted under the auspices of The Help Group-UCLA Autism Research Alliance. By using the coin toss 10 participants start the treatment and 9 participants wait after 14 weeks of treatment. The treatment group in value at the beginning and end of the treatment, while the control group for the second Evaluation done at the first session of the intervention (after a waiting period of 14 weeks). UCLA PEERS program consists of 14 weekly sessions of 90 minutes. Adults and caregivers attend separate concurrent sessions led by a licensed clinical psychologist.

MANOVA Results of measurement results indicate a multivariate main effect of group differences. The treatment group (TX) increased significantly more than the Delayed Treatment Control group (Wilks' Lambda = 0.34; F (1, 16) = 4.27, p < .02]. On starve young adults showed a significant value in the total score group TX than DTC: social and emotional loneliness as measured by the Selsa [F (1, 16) = 4.73, p < .05]; knowledge of social skills measured by TASSK [F (1, 16) = 17.03 , p <.01]. Reports from service providers about social function a significant improvement post treatment with a total score of SRS [F (1, 16) = 5.17, p < .04]; social skills as measure by SSRS [ F (1, 16) = 10:28, p < .01]; and empathy as measured by the EQ [ F (1, 16) = 4.93, p < .04]

Laugeson et al. 2012 studies with the aim of knowing the efficacy and durability of Peers Program, social skills group intervention that helped parents to adolescents with high function with ASD, 28 high school teenagers with ASD aged 12-17 years, 23 men and 5 women. Were randomly divided into treatment groups (n = 14) and control groups waiting (n = 14).

MANOVA test on parent report the treatment group showed greater improvement in social skills of adolescents overall than the control group: SSRS-scale P [mean SD = .71; F (1,26) = 3.40, p < .01], Cooperation [F (1,26) = 2.99, p < .01], Statement [F (1,26) = 2.62, p < .01], and Responsibilities [F (1,26) = 2.50, p < .02].

Parents in the treatment group also reported a reduction in symptoms was significantly greater ASD associated with a social response to the SRS-P (mean SD = 11.54) than parents in Delayed Treatment Control group [mean SD = 1.43; F (1,18) = 2.98, p < .01]. SRS-P subscale analysis showed a significant improvement in the field of Social Awareness [F (1,18) = 2.67, p < .02], Social Cognition [F (1,18) = 2.47, p < .02], Social Cooperation [F (1,18) = 3.21, p < .01], Social Motivation [F (1,18) = 2.09, p <.05], and decreased Autistic [F (1,18) = 2.06, p < .05]. From parental report showed a significant increase in the scale QPQ-P (mean SD = 1.57) compared Delayed Treatment Control group [mean SD = 0.21, F (1,26) = 2.60, p < .01]. QPQ-A also showed greater improvements in the treatment group (mean SD = 4.43) compared with Delayed Treatment Control group (mean SD = 0.29, t (26) = 2.23, p < .03). The significant increase in knowledge of social skills on TASSK-R was also observed in the treatment group (mean SD = 9.14) versus Delayed Treatment Control group [mean SD = .71; F (1,26) = 8.56, p < .01].

Results of follow-up analysis showed that treatment gains maintained for at T3 treatment groups for all outcome measures except SRS-P subscale Social Cognition. Reports of the overall social function in SSRS-P showed a significant improvement in the Social Skills Scale between T1 and T3 [F (1,11) = -4.02, p < .01].

Mandelberg et al. 2014 in a study of 53 adolescents with ASD and the their parents. Adolescents aged 12-18 years, 43 males and 10 females. Step assessment consists of the distribution of questionnaires to parents and teens as well as interviews semistructure for parents. Questionere
completed online using a web-based data collection sites, while for the interview with parents using the phone. In particular, the friendship and intervention information for interview (FLL; project developed) and social skills assessment system (SSRS; Gresham & Elliot, 1990) were collected from parents by telephone. Approval parents and teens through the telephone, being the right incentive to participate, the family received a gift card for $ 20.

The measurement was performed three times (T1, t2, and T3). T1 collected baseline (prior to receiving treatment Peers), posttest assessed after completion of action (T2). Long-term follow-up data on the 1-5 year (T3), with an average of 29 months of follow up. Activities carried out by a group of about 8-11 teenagers upper middle class and who expressed a desire to establish friendships. The group led by a licensed clinical psychologist with previous experience training social skills in adolescents with ASD.

The main objective of this study was to detect a difference, three different time points, the ability of social skills (scores Social Skills Total SSRS, score SRS total), frequency of problem behavior (scale of Problem Behavior SSRS, frequency-togethers (QPQ), and knowledge of teen social skills (TASSK). Subscales on SSR and SRS are not included in the analysis to avoid the calculation of amplifier power. To determine whether the sample selection factors affecting long-term outcomes, t test for independent samples was used to compare baseline differences between study participants completed flow (completers) with those who are in the initial study but did not complete the current study (Noncompleters). Since the objective of this study was to monitor changes in value during different time periods, variance analysis in one direction repeatedly (ANOVA) was performed to detect differences at three different time points in the complete data set of all participants.

Results showed the scale Social Skills Rating System problem behaviors scale, the Social Responsiveness Scale total and subscales, Quality of Play Questionnaire frequency of get-togethers, Test of Adolescent Social Skills Knowledge yields increased significantly at T2 and T3 than T1 with p < 0.05, overall this intervention is effective in improving ASD teenage friendship skills. And most of the improvement can be maintained on a long-term follow up to 1-5 years of treatment. Adolescent Social Skills Knowledge Test. Results T2 and T3 are significantly improved compared to T1, p < 0.05. The conclusion of this study indicate Peers intervention, the treatment group of evidence-based social skills, help the elderly, effectively increasing friendship of adolescents with ASD.

Schohl et al., 2014 with studies aimed at improving the quality of friendships and social skills in adolescents with ASD. 58 participants with 47 respondents aged 11-16 years men and 11 women were randomized to the control group and the treatment group. Peers program which refers to Laugeson 2009. Intervention guide PEERS 90 minutes given once a week for 14 weeks. Parents and teens attend separate and concurrent sessions where they learn how to make and maintain friends and apply the rules that are taught. Participants were randomly divided into two groups: the treatment group (n = 34), and wait for the control group (n = 19).

MANOVA test results revealed that the main effect of a significant group in the combined variable teens and parents, Wilks' Lambda = 0.41; F (1, 56) = 4.39, p < 0.001. The main effect for Time is also significant, Wilks Lambda = 0.17, F (1, 56) = 16.68, p < 0.001. However, the main effect is qualified by the interaction of a significant group by time, Wilks' Lambda = 0.19; F (1, 56) = 13.54, p < 0.001. Besides Intu, group interaction was also significant at four measurement results in adolescents: TASSK p < 0.001, QSA-AR p, 0.01, SIAS p < 0.01, and two measurements in the elderly: SRS p < 0.01, and SSRS problem behavior p < 0.05.

Paired t-test analysis results showed the experimental group significantly increased the level of knowledge about the concepts and skills of friendships with peers TASSK scale (p < 0.001), QSQ-AR (p < 0.001), a decrease in social anxiety with SIAS (p < 0.005). From the reports of parents in significant a decrease in the symptoms of autism, scale SRS p < 0.001, the symptoms of the problem behavior SSRS-P (p < 0.05 compared to the control group.

Overall the results revealed, compared with the waiting list group, a group of experimental treatments significantly improve their knowledge about the concept of peers and social friendship, an increase in the willingness to come together, and decreased levels of social anxiety, the symptoms of autism and their problems.

Yoo et al, 2014 in his study aimed to test the feasibility and effectiveness of the treatment of peers Korean version to increase social skills through controlled trials randomized (RCT). The English version of Manual Medicine peers (Laugeson & Frankel, 2010) was translated into Korean and reviewed by 21 professionals mental health of children. items identified culturally sensitive survey
of 447 middle school students, and the material has been modified. Participants termasu k 47 adolescents aged between 12 and 18 years with a diagnosis of ASD and intelligence quotient (IQ) ≥ 65. Adolescents who qualified were randomly assigned to a treatment group (TG) or delayed treatment control group (delayed treatment control group / CG). The primary outcome measure included questionnaires and direct observations to evaluate the power and social issues that are directly related to ASD.

Secondary outcome measure includes a scale for symptoms of depression, anxiety and other behavioral problems. The scale of assessment for symptoms of depression and anxiety of parents checked to detect changes in psychosocial functioning Peers parents during treatment. Independent samples t test showed no significant difference at the beginning of TG and CG condition with respect to age (14.04 ± 1.64 and 13.54 ± 1.50 years), IQ (99.39 ± 18.09 and 100, 67 ± 16.97), parental education, socioeconomic status, or ASD symptoms (p < 0.05).

Results for the results of treatment showed that the TG showed a significant increase in the value of the interaction domain and social interaction on the Autism Diagnostic Observation Schedule, interpersonal relations and a play / recreation at the score subdomain of scale Vineland Adaptive Behavior Scale (p's < 0.01), the score of knowledge social skills Adolescent social skills Knowledge Test Revised (p < 0.01), and decreased symptoms of depression in the Child depression Inventory after treatment (p < 0.05).

Analysis of the results of the parents showed a significant reduction in the anxiety state of the mother in TG after controlling for potential confounding variables (p < 0.05). Regardless of differences in culture and language, social skills intervention PEERS apparently efficacious for adolescents with ASD in Korean culture with a simple adjustment. In the RCT, participants who received treatment Peers showed a significant increase in knowledge of social skills, interpersonal skills, and the skills to play / fun, as well as a decrease in symptoms of depression and symptoms of ASD. This study is one of the few cross-cultural validation trial of evidence-based treatment that has been established for adolescents with ASD.

Laugeson et al, 2014 with a study conducted on 73 high school students with ASD with their parents and teachers. The objective of this study was to investigate the effectiveness of PEERS as a school-facilitated curriculum facilitated by teachers on improving social skills, social responses and peer skills, measured through teachers, parents, and self-report.

Participants receive social skills training with PEERS. Instructions are given daily by class teacher and teacher aide for 14 weeks. The assessment uses the measured questionnaire on (T1) before receiving treatment, T2 after completion of treatment.

The results showed that in the PEERS treatment group there was a significant increase in control group: in social skills knowledge (TASSK; mean DS = 0.00; F (1, 71) = 61.70, p <.001, d = 1.88) QPQ scale [mean DS = -1.42; F (1.71) = 6.46, p <.02, d = 0.59]; assessments from teachers increased significantly on: SRS scale [mean DS = 0.56; F (1.71) = 7.55, p <.01, d = -0.63]. Overall, the results show that compared to the control group the participants of the PEERS treatment group increased significantly in their social function.

Laugeson et al, 2015 on research that aims to know the effectiveness of social skills with peers programs conducted in adolescents with ASD with randomized controlled design, 22 young adults aged 18-24 years, were randomly conducted on 12 respondents treatment group (TX) and 10 control group waiting (DTC). Intervention is given 16 sessions for 90 minutes a week. Research focuses on establishing and maintaining friendships, maintain and develop romantic relationships, manage conflict and rejection by their peers. Keterapilan lesson taught in a way didactic, demonstration, role play, exercise behavior, and chores.

Participants were recruited from clinics help Group and UCLA peers. Diagnosis using caregiver report ASD (Baron-Cohen et al, 2001). Of the 22 participants, 17 completed all phases of the study (TX = 9 and DTC = 8). Among the group TX, 12 participants completed the initial test (T1), 10 completed the 16-week treatment and post-test (T2), and 9 completed the 16 week follow-up assessment (T3). In the DTC group, 10 participants completed the initial assessment 1 (T1) and baseline 2 (T2), and 8 completed the 16-week treatment with follow-up tests (T3) and follow-up of 16 weeks (T4).

The test results showed a main effect Multivariate MANOVA there is a difference between the two groups. TX group increased significantly than group DTC [Wilks' Lambda = 0.14; F (5, 11) = 12:43, p < 0.001]. total score shows the measurement results for the group increased than DTC TX: knowledge of social skills TASSK scale increased significantly in TX [F (1, 16) = 27.13, p < 0.001, d = 2.57], scale QSQ [F (1,
4 DISCUSSION

A systematic review of eight studies that fit the inclusion and exclusion criteria illustrates that PEERS programs conducted in adolescents and adults with ASD overall have a significant effect on their changing social skills. The average individual with an ASD after a PEERS intervention program was given a significant increase in social skills.

Research Gantman et al 2012, Schohl Kirsten A. 2014, Mandelberg, 2014, Laugeson et al 2012, intervention PEERS program conducted as much as 14 sessions for 90 minutes, conducted every week, TASSK measurement scale, QPQ, QSQ, used to know skills improvement social outcomes in adolescents with ASD, whereas the measurement scales used in older adults or adolescent counselors with ASD use SRS, SSRS, QPQ, TASSK.

Eight studies using the PEERS program as an intervention, 6 studies were conducted using pre and post measurements and 2 follow up studies and long-term follow-up results. Major improvements can be maintained in long-term follow-up to 1-5 years of care for the Social Skills scale Rating System problem behavior scale, Social Responsiveness Scale total and subscales, Quality of Play Questionnaire frequency of get-togethers, Test of Adolescent Social Skills Knowledge. In addition to providing improvements in the scale of social skills the PEERS program can also lower anxiety scales. Schohl Kirsten A. 2014 study showed an anxiety reduction result with SIAS measurement scale (p <0.005). Eight studies on systematic reviews used the control group as a comparison, whereby overall a significant improvement in social skills score was compared with the control group.

5 CONCLUSIONS

Deficits social function is the main characteristic of individuals with ASD. Various psychological therapy done a lot to help increase the social competence of a person with ASD, but few evidence-based interventions that focus on improving their social competence. Social skills with peers is an intervention method manualized assisted parents. The treatment was done for 90 minutes each week for 12-14 weeks, with follow-up. Overall, the review results showed that adolescents and young adults with ASD received social skills with PEERS method to significantly improve their knowledge of social skills, social responsiveness, and social skills overall in the field of social communication, social cognition, social awareness, social motivation, assertions, cooperation, and responsibility, while reducing autistic behavior and increase the frequency of peer interaction. Independent teacher assessment showed significant improvement in social skills and the assertion of a pre-test to follow-up assessment. And most of the behavioral improvement was maintained until the follow-up is done.

6 REFERENCES


