Effectiveness Of Social Information Processing Skills Training Using Making Choices Program On Promoting Social Competence of Primary School Children With Aggressive Behavior

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Abstract

The purpose of the current study was to explore the effectiveness of social information processing skills training using making choices program on promoting social competence of primary school children with aggressive behavior . 60 students in grade five who had been identified as having aggressive behavior and were experiencing social problems were chosen .The sample was randomly divided into two groups; experimental (n= 30 boys) and control (30 boys,). The Aggression Questionnaire, and Social Competency Rating Form were used . ANCOVA and Repeated Measures Analyses were employed for data analysis. Results from this study indicated the effectiveness of the program employed in improving social competency of the students in the experimental group.

Keywords. social information processing model, social competence, children with aggressive behavior .

Introduction

Research suggests that early conduct problems and peer relations may contribute uniquely to long-term social adjustment (Dodge et al., 2003; S. E. Nelson & Dishion, 2004). More important, acceptance by peers buffers the effects of aggressive behavior, whereas rejection appears to exacerbate it (Dodge et al., 2003; Prinstein & La Greca, 2004). Social competence helps children "select and engage in social behaviors sensitively and appropriately in different situations" (Bierman, 2004, p. 79). These skills appear to be strongly related to developmental outcomes (Lengua, 2003; Maughan & Cicchetti, 2002; Schwartz & Proctor, 2000; Zins, Weissberg, Wang, & Walberg, 2004).

The social information processing (SIP) model proposed by Crick and Dodge (1994) has been used repeatedly for studying the cognitive processes associated with aggressive behaviors in children. This model aims to breaks down social information processing into empirically testable components that include six steps: encoding of cues, interpretation of cues, clarification of goals, response access, response decision, and behavioral enactment. The cyclical nature of the model enables the various components to influence each other, although the steps are thought to occur in sequence. Each step of the model is influenced by social schemas stored in the child's memory. These schemas comprise an organized knowledge set that is called upon to help the individual respond in a new situation.

Research has consistently documented that socially maladjusted children, specifically aggressive children, differ from their socially adjusted peers in all stages of the SIP cycle (see Crick & Dodge, 1994). Aggressive children encode fewer cues in the environment and rely on their internal schemas to guide their interpretations of the situation (without considering the available information) more often than their non-aggressive peers (Dodge & Tomlin, 1987). When interpreting the cues, aggressive children make more hostile intent attributions in ambiguous social situations than non-aggressive children (Crick & Dodge, 1994; Orobio de Castro et al. 2002).Whereas socially adjusted children pursue relationship-enhancing goals, socially maladjusted children report more antisocial goals, such as revenge (Erdley & Asher, 1996). Lastly, aggressive children are more likely to access more aggressive responses to ambiguous social situations than their non-aggressive peers, as well as enact more aggressive responses (Quiggle, 1992). Besides endorsing more aggressive responses, aggressive children also believe their responses will produce more favorable outcomes and they are more confident in ability to carry out an aggressive response than non-aggressive children (Erdley & Asher, 1996).

The current investigation is grounded in the strong theoretical foundation of the social information processing model proposed by Dodge and his colleagues (e.g., Crick & Dodge, 1994; Dodge, 1986). The model posits that individuals progress through a series of stepwise mental mechanisms that are activated in response to external social cues and deactivated on individuals' behavioral response. According to this model (see Fig. 1), four mental steps take place before individuals enact a behavioral response to social cues: (1) encoding of social cues, (2) interpretation of the cue, (3) generation of a behavioral response, and (4) evaluation of the response (Dodge & Price, 1994). In Steps 1 and 2, individuals selectively focus on particular social cues and, based on these cues, interpret the context of the situation (e.g., the intent of the other interactant). In Steps 3 and 4, individuals access possible responses from previous experiences stored in long-term memory, evaluate these responses, and then select one to enact (Crick & Dodge, 1994). In this loop-like process, each step affects, and is affected by, a database for social behavior. This database includes the memory storage of past situations, acquired social rules, social schemes, and knowledge of appropriate and inappropriate social behaviors.

The *Making Choices* Program

The Making Choices (MC) Program is a universal school-based intervention that attempts to minimize social-cognitive and emotional antecedents of aggression and strengthen children's skills for positive peer relations. Although initially designed for use with the third grade (Fraser et al., 2000), the curriculum has been adapted for preschool children and pre-adolescents. The program has been implemented by intervention specialists as well as by teachers and has been delivered to small, mixed groups and whole classrooms.

Results from four pilot studies suggest that Making Choices is effective in strengthening promotive factors associated with peer acceptance and reducing aggression (Fraser, Day, Galinsky, Hodges, & Smokowski, 2004a; Fraser, Galinsky, Smokowski, Day, Terzian, Rose, & Guo, 2004b; Nash, Fraser, Galinsky, & Cooper, 2003; Smokowski, Fraser, Day, Galinsky, & Bacallao, 2004). The first pilot study tested the first three units of Making Choices in a middle school in central North Carolina (Nash et al., 2003). As a part of routine school administration, the sixth-grade cohort was divided into two "schools within schools," with one-half of students (n=70) receiving Making Choices and the other half receiving instruction as usual (n=95). The sample was predominantly female (59%) and European American (69%), and a large proportion (47%) was academically gifted. To estimate program effects, paired-sample t tests and hierarchical linear models (HLMs) were used. This study detected effects on encoding and goal clarification for the overall sample, however, no significant effects on SLA skills were found for aggressive-rejected and non-aggressive rejected students. The weak impact on behavioral improvement was attributed to three factors: a) variation in the implementation of the program; b) teachers delivered only one half of the curriculum; and c) negative peer-group influences. Another reason for weak effects may have been the low statistical power of the study. Effects were estimated with multilevel models despite the fact that the Level 2 equation contained only 5 subjects (i.e., the number of homerooms).

Children with social problems also have difficulty generating behavioral solutions to interpersonal problems (Evans & Short, 1991; Guerra & Slaby, 1989; Khalifa,2014). Although they can choose an appropriate first solution, when the first solution is ineffective, these children seem to have difficulty coming up with alternative solutions.

Although numerous of studies have examined the effectiveness social information processing in other children , little is known about the effect on social competence of children with. Aggressive behavior.

So, the present study seeks to explore the effectiveness social information processing skills training using making choices program on promoting social competence of primary school children with aggressive behavior . It addresses the following questions :

1- Are there statistically significant differences in post– test scores mean between control and experimental groups on Social Competency Rating Form?

2- If the program is effective, is this effect still evident a month later?

Method

Participants

60 students in grades five who had been identified as having aggressive behavior and were experiencing social problems were chosen .The sample was randomly divided into two groups; experimental (n= 30 boys) and control (n= 30 boys).They two groups were matched on age ,IQ , and Social Competency . Table 1. shows means, standard deviations , t- value , and significance level for experimental and control groups on age (by month) , IQ , and Social Competency (pre-test) .

Table 1.*means, standard deviations , t- value , and significance level for experimental and control groups on age (by month),IQ, and Social Competency (pre-test).*

Variable	Group	N	M	SD	T	Sig.
Age	Experimental	30	132.24	1.92	-.121	Not sig.
	Control	30	132.41	2.01		
IQ	Experimental	30	118.34	2.45	-.221	Not sig.
	Control	30	118.89	2.24		
Social	Experimental	30	25.83	4.09	-.621	Not sig.
Competency	Control	30	24.80	3.52		

Table 1. shows that all t- values did not reach significance level. This indicated that the two groups did not differ in age , IQ , and Social Competency (pre-test).

Measures

The Aggression Questionnaire by Buss and Perry (1992) contains 29 items that are measured on a Likert Scale ranging from one being non-characteristic to five being very characteristic. The questionnaire is comprised of four distinct subscales: Physical Aggression, Verbal Aggression, Anger, and Hostility. Buss and Perry's Aggression Questionnaire offers modest but adequate evidence for construct validity. In this study the terms "low level" and "high level" of self-reported aggression were based on each participants' score on the Aggression Questionnaire. The survey looks at how aggressive the respondent is as a child.

Social Competency Rating Form.(Gottfredson et al., 2002) .The revised scale consists of 29 items, with 12 negatively worded items and 17 positively worded items. Sample items include: Hits, kicks at, or jumps on other children; If provoked by peers, shows self-control; Solves problems with peers through compromise or discussion; and Expresses concern for

others. It has three subscales; namely Social Skills , social behaviour and impulsivity .All items are answered on a 4-point Likert-type scale, with a 1 indicating "Almost Never", 2 indicating "Sometimes", 3 indicating "Often", and 4 indicating "Very Often.".

Procedure

Written permission was obtained from Hurghada Edara in order to conduct the application in schools. Schools were visited in order to inform parents and teachers about the study. Parents of all children were interviewed and provided permission for their children to be included in the study. The Aggression Questionnaire ,and Social Competency Rating Form were completed. The Social Information Processing program (The Making Choices Program) was applied to children. The application lasted approximately 25 min.

Design and Analysis

The effects of implementing the program on students' social competency were assessed using a repeated-measures design, pre- post- and follow up testing.

Results

Table 2. shows data on ANCOVA analysis for the differences in post- test mean scores between experimental and control groups in Social Competency Rating Form. The table shows that the (F) value was (131.099) and it was significant value at the level (0.01).

Table 2. *ANCOVA analysis for the differences in post- test mean scores between experimental and control groups in Social Competency Rating Form*

Source	Type 111 sum of squares	df	Mean square	F	Sig.
Pre	17.004	1	17.004		
Group	30055.895	1	30055.895	131.099	0.01
Error	13062.867	57	229.261		
Total	43369.933	59			

Table 3. shows T. test results for the differences in post- test mean scores between experimental and control groups in Social Competency Rating Form. The table shows that (t) vale was (11.586). This value is significant at the level (0.01) in the favor of experimental group.

Table 3. *T- test results for the differences in post- test mean scores between experimental and control groups in Social Competency Rating Form*

Variable	Group	N	Mean	St Deviation	T	Sig
Social Competency	Experimental	30	83.83	1.64	11.586	0.01
	Control	30	38.90	8.17		

The table also shows that there are differences in post- test mean scores between experimental and control groups in Social Competency in the favor of experimental group .

Table 4. shows data on repeated measures analysis for Social Competency Rating Form. The table shows that there are statistical differences between measures (pre- post- follow up) at the level (0.01).

Table 4 . *Repeated measures analysis for Social Competency Rating Form.*

Source	Type 111 sum of squares	df	Mean square	F	Sig.
Between groups	50200.200	1	50200.200	590.551	0.01
Error 1	4930.333	58	85.006		
Between Measures	25297.003	2	12648.517	123.776	0.01
Measures x Groups	25515.700	2	12757.850	124.846	0.01
Error 2	11853.	116	102.189		

Table 5. shows data on Scheffe test for multi-comparisons in Social Competency Rating Form. The table shows that there are statistical differences between pre and post measures in favor of post test , and between pre and Follow-up measures in favor of follow up test , but no statistical differences between post and Follow –up test .

Table 5. *Scheffe test for multi- comparisons in Social Competency Rating Form*

Measure	Pre M= 25.83	Post M= 83.83	Follow -up M= 85.13
Pre	--	--	--
Post	44.633*	--	--
Follow-up	45.933*	1.300	--

Discussion

The main objective of the present study was to explore whether there were differences in post – test scores mean between control and experimental groups on social competency. The study also examined If the program was effective, if this effect was still evident a month later .

It was hypothesized that there would be statistically significant differences in post–test scores mean between control and experimental groups on Social Competency Rating Form in favor of the experimental group, and the effect of the program would still be evident a month later.

The results of this study as revealed in tables 3 and 5 show that the program was effective in improving social competency of students in experimental group, compared to the control group whose individuals did not receive training based on the information processing model.

Subject-related studies (Lemerise & Arsenio, 2000; Parke et al., 1989) put forth that social information processing models are effective on the emotions of children, cognitive processes, and responding to social situations. It is thought that children, who can control their emotions, have a better level of social skills and social interaction. Social goals are closely related to the social information process. In other words, children who develop relationships are not aggressive and have social goals developed using more positive strategies. These children are liked and accepted more by their peers, and are able to establish healthier relationships (Crick & Dodge, 1994; Rose & Asher, 1999). The fundamental purpose of social relations is correctly interpreting social situations, and reacting to these situations accordingly (Crick & Dodge, 1994). .

As illustrated, the study results are in line with the results obtained in previous studies. Children who are competent at all stages of social information processing display more prosocial behaviours towards their peers. These children enter their peer group easier, and develop a more cold-blooded attitude towards peer provocation. They can also respond to

peer and teacher expectation, and respond accordingly to success and failure. These children are considered to be more socially competent at every stage of social information processing in comparison to inadequate peers. Social competence is an effective factor on interpersonal relationships, school readiness, and school adjustment of young children (Ladd, 2005).

Limitations and Further Study

One limitation of the current study stems from the fact that the scope of the study is limited to the data collected from children with aggressive behavior. Hence, further research with larger and more demographically diverse populations with random selection would strengthen the findings of the study.

Second, it may be that the length of the intervention was not sufficient to see change large enough to be measured. Sheridan et al. (1996) suggested that the training used in that study (10 weeks long) possibly was too short to produce long-range effects. The present study also used brief training (5 weeks), as is often the case with interventions in the school setting.

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