



The Effectiveness of Social Stories Intervention on Aggressive Behavior of Aggressive Preschool Children

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Abstract

The purpose of this study was the effectiveness of social stories intervention on aggressive behavior of aggressive preschool children. The preschool aggression scale was distributed among the teachers to complete it for all 4-5 year old children in 2 kindergartens. Based on teachers' ratings of children's aggressive behavior, those who scored more than 125.77 for boys and more than 117.48 (Vahedi, Fathiaza, Hosseini-Nasab, Moghaddam, 2008) for girls, a 14 subject sample size (7 subjects in each group) was determined for the present study. Aggression Scale for Preschoolers (Shahram Vahedi et al., 2008) was employed for data collecting and analyzing. Z Value results for the differences in post- test mean rank scores between experimental and control groups on Aggression Scale for Preschoolers. The table shows that (Z) values were (-2.232) for verbal aggression, (-2.431) for physical aggression, (-2.301) for relational aggression, (-2.455) for impulsive anger, and (-2.661) for the composite score. These values are significant at the level (0.01, $p < 0,01$) in the favor of the treatment condition. The second objective of the study was to determine the effect of social stories on decreasing aggressive behaviour in aggressive preschool children. The treatment consisted of aggression training through use of social stories. The children's performance on aggression was measured pre and post intervention. The table shows that (Z) values were (-2.447) for verbal aggression, (-2.561) for physical aggression, (-2.423) for relational aggression, (-2.401) for impulsive anger, and (-2.546) for the composite score. These values are significant at the level (0.01, $p < 0,01$) in the favor of post testing.

Keywords: Social stories intervention, aggressive behaviour, aggressive preschool children

Introduction

As Tremblay (2000) puts it, aggressive behavior is part of the typical development of young children. When children reach the age of 2 or 3, they show a peak in their level of aggression (Alink et al., 2006). Children, at this age, lack of verbal abilities and they have increased motor skills and sense of autonomy, as a result, they use physical aggression as a tool to express themselves (Campbell, 2002). Preschool period is considered to be a period of decline in the level of physical aggression appears, nevertheless, some children continue to show a high level of aggression and are at risk for the development of a chronic and persistent pattern of aggressive behavior (Broidy et al., 2003; Shaw, Lacourse & Nagin, 2005).

Carol Gray (2003), the director of The Gray Center for Social Learning and Understanding states that a Social Story should be individualized and four basic types of sentences should be found: (a) descriptive, (b) directive, (c) perspective, and (d) affirmative. Descriptive sentences define who is involved, where the situation takes place, what is happening, what is expected, and why. Directive sentences explain to the child what is expected of and how to respond to the situation, by using "I will try..." statements. Perspective sentences describe what others may be feeling or thinking. Finally, affirmative sentences are used to help the child define or remember the story better. These four basic sentence types and a ratio that defines their frequency are the most important components of the Social Story.

Gray and Garland (1993) stated that numerous uses of social stories included: (a) explaining routines or changes in routines, (b) describing social situations without intimidating, (c) teaching academic skills, (d) teaching social skills, (e) training adaptive skills, and (f) dealing with difficult types of behavior, including emotional expression, aggression, or obsessive behavior (Gray, 2000).

The goals of Social Stories are to share accurate social information and to promote social understanding. Social stories intervention was used with some success when targeted behaviour such as aggression, screaming, tantrums, grabbing toys and inappropriate table manners (Kuo & Mirenda, 2003; Rowe, 1999; Scattone, Wilczynski, Edwards, & Rabian, 2002; Toplis & Hadwin, 2006).

Tricia and Ronald (2011) investigated this previously undocumented use of social stories. Social stories were used to decrease aggression and improve positive peer relations in a Head Start pre-school setting. Participants included three four-year old pre-school students. A single-subject, ABC multiple baseline design with counterbalanced treatment order was implemented where social stories were compared to a neutral book. Direct observations and pre- and post-Behaviour Assessment System for Children-2 (BASC-2) Teacher Rating Scale (TRS) scores were examined. Results revealed some support for the usefulness of social stories in this setting and with this population.

Although social stories were first developed for use with autistic children, the approach has also been successful with children, adolescents, and adults with autism and other social and communication delays and differences, as well as normally developed individuals (Gray, 2004).

Purpose of study

The purpose of this study was the effectiveness of social stories intervention on aggressive behavior of aggressive preschool children.

Research Questions

The following two research questions were posed and investigated in the study:

1. Are there differences in post- test ranks mean between control and experimental groups on aggressive behavior?
2. Are there differences in post-test ranks mean for the experimental group on aggressive behavior?

Method

The study employed the semi experimental design to examine the effectiveness of social stories intervention on aggressive behavior of aggressive preschool children.

Sample

The preschool aggression scale was distributed among the teachers to complete it for all 4-5 year old children in 2 kindergartens. Based on teachers' ratings of children's aggressive behavior, those who scored more than 125.77 for boys and more than 117.48 (Vahedi, Fathiaza, Hosseini-Nasab, Moghaddam, 2008) for girls, a 14 subject sample size (7 subjects in each group) was determined for the present study.

Measures

Aggression Scale for Preschoolers (Shahram Vahedi et al., 2008). This questionnaire aimed to evaluate various types of aggression, including verbal aggression, physical aggression, relational aggression, and impulsive anger. The questionnaire was filled out by the teachers. In this 43-item questionnaire, the first 14 questions are related to verbal aggression and the next 13 are about physical aggression; also, there are 9 questions on relational aggression, and the last 7 items deal with impulsive anger. This questionnaire was filled out by the teacher using 5 options (0=never, 1=rarely, 2=once a month, 3=once a week, and 4=often). The scores of verbal aggression, physical aggression, relational aggression, and

impulsive anger were between 0 and 56, 0 and 52, 0 and 36, and 0 and 28, respectively. Thus, the scores of the whole test could range from 0 to 168. The children whose aggression scores were two standard deviations above the mean (117.47 for girls and 125.77 for boys) were diagnosed as aggressive. The Cronbach's alpha was estimated to be 0.98 for the whole scale, 0.93 for verbal aggression, 0.92 for physical aggression, 0.94 for relational aggression, and 0.88 for impulsive anger. A factor analysis of this scale using principal component analysis with Varimax rotation resulted in four elements of verbal aggression, physical aggression, relational aggression, and impulsive anger, which was indicative of the construct validity of the scale.

Procedure

Permission to conduct this study was obtained from both schools principals and students' parents. 21 session were conducted and carried out for the treatment condition. Each session taught the target children a certain behavior. Each session consisted of instructions, modeling, and role Play and feedback. The control group, however, received no interventions throughout the course of research.

Results

Social stories and aggressive behaviour

The first objective of the study was to determine if use of social stories would be more effective for the treatment group compared to the control group. For this purpose, the post intervention scores of both treatment and control groups were analyzed. Table 1. shows Z Value results for the differences in post- test mean rank scores between experimental and control groups on Aggression Scale for Preschoolers. The table shows that (Z) values were(-2.232)for verbal aggression,(-2.431)for physical aggression, (-2.301)for relational aggression, (-2.455)for impulsive anger,and (-2.661)for the composite score. These values are significant at the level (0.01, $p < 0,01$) in the favor of the treatment condition.

Table 1. Z Values results for the differences in post- test mean rank scores between experimental and control groups on aggressive behaviour

Variables	Groups	N	Mean Ranks	Sum Ranks	Mann-whitney	Z Value	Sig
Verbal aggression	Ex	5	8	40	Zero	-2.232	0.01
Physical aggression	Ex	5	8	40	Zero	-2.431	0.01
Relational aggression	Ex	5	8	40	Zero	-2.301	0.01
Impulsive anger	Ex	5	8	40	Zero	-2.455	0.01
Composite	Ex	5	8	40	Zero	-2.661	0.01

The second objective of the study was to determine the effect of social stories on decreasing aggressive behaviour in aggressive preschool children. The treatment consisted of aggression training through use of social stories. The children's performance on aggression was measured pre and post intervention. The table shows that (Z) values were(-2.447)for

verbal aggression,(-2.561)for physical aggression, (-2.423) for relational aggression, (-2.401)for impulsive anger, and (-2.546)for the composite score. These values are significant at the level (0.01, $p < 0,01$) in the favor of post testing.

Table 2. *Z Values results for the comparison of mean rank scores of the treatment condition at pre- and post intervention on aggressive behaviour*

Variables	Negative Ranks		Positive Ranks		Z Value	Sig.
	Mean	Sum	Mean	Sum		
Verbal aggression	3	15	Zero	Zero	-2. 447	0.01
Physical aggression	3	15	Zero	Zero	-2. 561	0.01
Relational aggression	3	15	Zero	Zero	-2. 423	0.01
Impulsive anger	3	15	Zero	Zero	-2. 401	0.01
Composite	3	15	Zero	Zero	-2. 546	0.01

Discussion

The first objective of the study was to determine if use of social stories would be more effective for the treatment group compared to the control group. For this purpose, the post intervention scores of both treatment and control groups were analyzed. Z Value results for the differences in post- test mean rank scores between experimental and control groups on Aggression Scale for Preschoolers. The table shows that (Z) values were(-2.232)for verbal aggression,(-2.431)for physical aggression, (-2.301)for relational aggression, (-2.455)for impulsive anger, and (-2.661)for the composite score. These values are significant at the level (0.01, $p < 0,01$) in the favor of the treatment condition. The second objective of the study was to determine the effect of social stories on decreasing aggressive behaviour in aggressive preschool children. The treatment consisted of aggression training through use of social stories. The children's performance on aggression was measured pre and post intervention. The table shows that (Z) values were(-2.447)for verbal aggression,(-2.561)for physical aggression, (-2.423)for relational aggression, (-2.401)for impulsive anger,and (-2.546)for the composite score. These values are significant at the level (0.01, $p < 0,01$) in the favor of post testing.

This findings go in the same line with Benish and Bramlett.(2011) revealed some support for the usefulness of social stories in this setting and with this population Social stories offer additional information about social situations, enabling children to better understand and interpret what is expected in their environment. Social stories were acceptable to the nursery as an intervention.

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