Effect of Social Empowerment Training and Responsibilities Nursing Intervention on Children with Attention Deficit Hyperactivity Disorder

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Abstract

Background: Attention deficit hyperactivity disorder (ADHD) is considered common childhood neurodevelopmental disorder that has been increased in number among children in the last several years, it causes psychosocial functioning difficulties and leading to feelings of inferiority. **Aim**: To evaluate the effect of social empowerment training and responsibilities (STAR) nursing intervention on children with attention deficit hyperactivity disorder. **Subjects and method: Design:** A quasi-experimental research design was used. **Setting**: The study was conducted at two primary schools in Sohag City. **Subjects**: A purposive cluster random sample of 50 children with ADHD who were selected and equally divided into study & control groups, (25) children in each one, were recruited using multi-stage random sample technique. **Tools were used to collect data included**: (I) a child's demographic datasheet, (II): Think about It! Quiz. **Results**: the study revealed as athletic competence that more than three-quarters of the study group and in the control group did not do very well at all kinds of sports, regarding conduct/morality majority of them in the groups were did not behave very well most of the time. As regards peer acceptance, majority of children were not having a lot of children. Concerning physical appearance, majority of children in the study and control group children respectively with their physical appearance is different. In addition, more than half of the study and control group children do very well in their classwork concerning scholastic competence. There was an improvement in self-concept post-social empowerment training and responsibilities program implementation. **Conclusion**: The results of the current study concluded that social empowerment training and responsibilities programs affect children with ADHD positively and improve their self-concept. **Recommendations**: Future researches are required to develop and refine interventions through applying social empowerment training and responsibilities nursing intervention for children with ADHD to improve their self-concept.

Keywords: Social Empowerment Training and Responsibilities, Nursing Intervention, Children with Attention Deficit Hyperactivity Disorder

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by difficulty paying attention, excessive activity, and impulsivity (acting before thinking) (1). There are three major presentations of ADHD: predominantly inattentive, in which children and adolescents have problems concentrating and focusing; predominantly hyperactive-impulsive, in which children and adolescents experience impulsivity and excess activity; and combined type, in which children and adolescents experience symptoms of inattention, hyperactivity, and impulsivity **(American Academy of Child and Adolescent Psychiatry, 2013).**

Attention deficit hyperactivity disorder affects 8-12% of elementary school children (worldwide) and affects 7.48% in (Egypt) these variable incidence of attention deficit hyperactivity disorder is depending on the

diagnostic criteria and assessment tool **(Vidbeck, 2014).**

Attention deficit hyperactivity disorder cause grave problems for suffers and those around them as they have a variety of school-related problem including difficulty in paying attention, following directions, staying seated, completing listening, assignments and also exhibit social problems including poor relations additionally these problems are often accompanied by other associated Problems as low self-esteem that may further affect the academic performance of these students and also a social problem as anti-social behavior, have trouble getting along with others, and are often less liked by their peers (**Halpern & Healey, 2016).**

The Centers for Disease Control and Prevention, (2018) estimated that approximately 9.4% of children in the United States between ages 2 to 17 years old had been diagnosed with ADHD. Children with ADHD will generally begin to experience increased distress upon entering school. These children display problems in behavioral control (inattention, hyperactivity, and impulsivity), academic performance, and interpersonal relationships, which can attract negative attention from parents, teachers, and peers **(Dvorsky & Langberg, 2016).** Ongoing negative feedback from pivotal figures in the lives of children with ADHD can, in turn, erode these children's sense of self, leading to the development of negative coping strategies, lack of competence, and poor quality of life. Causing serious problems in relationships and occupational functioning, preventing these individuals from achieving lifelong goals (**CHADD, 2018).**

Attention deficit hyperactivity disorder is considered a dysfunction within the brain, controlling information the mind receives, and the mind can only process the information it receives, it can be assumed that there will be an effect on the sense of self concerning self and others. Several terms can be utilized when considering a sense of self, including Self-perception, self-concept, self-esteem, and self-worth. According to Learner's Dictionary, the definition for self-perception and self-concept are the same, which is the idea that one has about the kind of person one is. Self-esteem is also closely related, meaning a feeling of having respect for oneself and one's abilities. Therefore, self-perception is something one knows about oneself through self-reflection, and self-esteem is the attitude one has about oneself through self-evaluation **(Merriam-Webster, 2021).**

Social empowerment training and responsibilities program was developed for children with attention deficit hyperactivity disorder to provide them with information related to ADHD, and measures to improve children's self-perception and helping children become more empowered by helping them to succeed in school regardless of the type of environmental changes they experience from year to year **(Frame, 2004) .**

Frame (2004) developed the Social Empowerment Training and Responsibilities for Students with ADHD (STARS) Program. Theoretical frameworks that she used to create this program were the Roy Adaptation Model, the Murrell-Armstrong Empowerment Matrix, and Harter's Developmental Perspective of Preadolescence. The Roy Adaptation Model encourages the assessment of a child and their stimuli to identify causes of problematic responses and then to provide interventions to manage the stimuli for a more adaptive response **(Roy, 2009).**

Children with ADHD who attended the social empowerment support group intervention scored significantly higher in perceptions of social acceptance, athletic competence, physical appearance, and global self-worth than the students with ADHD in the control group not attending the support group intervention. Although not statistically significant, scores of scholastic competence and behavioral conduct were higher in the intervention group than the control group as well. Perceived classmate support is an important variable that promotes emotional well-being and resilience in children with ADHD **(Mastoras, Saklofske, Schwean, & Climie, 2018).**

Feeling responsible for something that is imposed upon them, individuals with ADHD can become engaged, develop acceptance, and find meaning **(Honkasilta, Vehmas**, &

Vehkakoski, 2016). Therefore, it is important to not just see children with ADHD as inattentive or hyperactive but as children with unique perspectives. It is important to understand the experiential perspective of this disorder to assist in finding ways to improve the outcomes for children with ADHD. Understanding the perceptions of children with ADHD helps to explain emotional and behavioral patterns. Children with ADHD are often victimized by peers every week **(Becker, Mechari, Langberg, & Evans, 2017).** Therefore, children with ADHD are more sensitive to injustice and rejection with intense emotional reactions and negative ruminations, developing an increased vulnerability to depression and lower self-esteem or tendencies for retaliation such as with conduct problems **(Bondü & Esser, 2015**). Relational victimization is an attempt to harm by social exclusion and is related to internalizing problems leading to the development of depression and low self-esteem. Support in the form of cognitive restructuring might assist children and adolescents with ADHD to consider other explanations for their perceived negative behaviors of others and how their behaviors may contribute to negative reactions by others **(Becker, Mechari, Langberg, & Evans, 2017).**

The most effective therapeutic approach for childhood attention deficit hyperactivity disorder is a multimodal treatment which consists of multiple elements including stimulant medication, parental training, teacher's education by identifying teachers' knowledge about attention deficit hyperactivity disorder as it provides data regarding what kinds of information teachers are lacking in this area and help them to implement various educational interventions **(Ferri, 2017).**

The nurse should assess the global impact of the child's mental health disorder on the child's social functioning, education, and family life. The risk for harm to self or others, and potential for abuse or neglect are important elements of the assessment. A family history of mental health disorders should also be ascertained. Nurses help children understand the rationale for the diagnostic process, the approach to treatment, and the importance of follow-up to re-evaluate the child and make sure that the diagnosis and treatment are appropriate over time. Lastly, nurses help families understand and cope with the inevitable uncertainties **(Wolraich, McKeown, Visser, Bard, Cuffe, & Neas, 2018).**

Significance of the study :

ADHD is considered one of the public health problems because it's associated with morbidity and disability in children. It is included many consequences on them such as financial cost, stress on parents, negative effect on academic and vocational activities, and they are on self-esteem. Children with ADHD are characterized by inattention, hyperactivity, and impulsivity that demonstrate a lack of control and feel powerless in their ability to adapt. Interventions focus on control of behaviors by giving stimulant medications and applying behavioral modification techniques through reward and punishment **(Barkley, 2017).** However, when these medications are not available or discontinued, symptomatic behaviors return .

Applying STAR intervention can help children with ADHD develop their insight into the causes of their problems and then motivating them to change behaviors, develop a sense of empowerment and improve their ability to be adaptable. Children with ADHD face challenges placing them at high-risk negative outcomes. Therefore, it was important to conduct this study by the researchers to evaluate the effect of STAR nursing intervention on children with attention deficit hyperactivity disorder.

Aim of the study

This study aimed to evaluate the effect of social empowerment training and responsibilities (STAR) nursing intervention on children with attention deficit hyperactivity disorder through:

- Analyze the self-perceptions among children with attention deficit hyperactivity disorder before and after attending a social empowerment training and responsibilities program
- Developing and implementing social empowerment training and responsibilities

program for children with attention deficit hyperactivity disorder.

- Evaluating the effect of social empowerment training and responsibilities program on children with attention deficit hyperactivity disorder.

Research hypothesis:

H1: Application of the social empowerment training and responsibilities program for children with attention deficit hyperactivity disorder will improve their self-concept scores.

H2: Application of the social empowerment training and responsibilities program for children with attention deficit hyperactivity disorder will help problem-solving and develop new solutions to their difficulties.

H3: Application of the social empowerment training and responsibilities program for children with attention deficit hyperactivity disorder will positively affect in children with ADHD.

Subjects and Methods:

Research design:

A quasi-experimental design was used in this study. Quasi-experimental research is a prospective or retrospective study in which patients self-select or are selected into one of some different treatment groups to compare the real effectiveness and safety of non-randomized treatments **(Maciejewski, 2020).**

Setting:

The study was applied in two primary schools in Sohag City. The selected schools in Sohag City are named Sohag El-Ebtidia and Omar Ebn El Khattab primary schools. Sohag City contains 20 primary schools. The researchers selected 20% of the total number of schools by stratified random sample which was about two primary schools .

Sample:

A purposive cluster random sample of 50 children with attention deficit hyperactivity disorder was selected and equally divided into study & control groups, (25) children in each one, were recruited using a multi-stage random sample technique.

Sample size:

The sample size was calculated through Open episoft ware, version 3, open-source calculator.

Inclusion criteria:

- Children aged from 9-13 years .

- From both sexes.

- Agree to participate in the current study .

Exclusion criteria:

- Children who are suffering from chronic diseases .

Tools of data collection:

Two tools were used to collect data included :

Tools (I): A child' demographic data sheet included age, gender, level of education, and birth order

Tools (II): Think about It! Quiz:

Self-concept was evaluated utilizing the Think about It! Quiz **Karen, (2013)** to measure for any change in the children's perceptions, describe the self as the child sees himself at present, not as the child wishes to be in the future. Also, describe the child generally or typically, as compared with other persons of the same sex and roughly your same age. The Think about It! A quiz identifies a negative self-concept as any score of 17 or less in a domain of functioning, with the highest score achievable in a domain as 30

Self-concept was evaluated utilizing the Think about It! Quiz **Karen, (2013).** The quiz measures self-concept in five domains that children tend to compare themselves against their peers. These domains include athletic competence included 6 items; conduct/morality included 6 items, peer acceptance included 6 items; physical appearance included 6 items, and scholastic competence included 6 items; By identifying domains of a negative self-concept, the social empowerment support group facilitator could develop strategies to target specific areas of need. By providing this intervention, children can be supported to adapt

to social, academic, and behavioral changes, leading to positive feedback and increased perceptions of their abilities .

Scoring system:

A score of 17 or less in one area indicates a negative self-concept in the relevant domain.

Validity of the tools :

The content validity was tested for clarity, comprehensiveness, appropriateness, and relevance and reviewed by five experts in the pediatric nursing field and Community Health Nursing field. Modifications were done according to the panel judgment to ensure clarity of sentences and appropriateness of the content .

Reliability of the tools :

The reliability of the tools was assessed through Cronbach's alpha test was α= 0. 89 in the first tool, and the second tool α was 0.90.

A pilot study:

The pilot study was conducted on 10% (5 children) of the total sample to ensure the clarity, applicability of the tools, and the time needed to be completed. According to the results obtained from the pilot study, the required modifications were performed .

Administrative and ethical considerations :

Official permission was obtained through letters addressed from the Dean of the Faculty of Nursing, explaining the aim of the study and asking for cooperation. The children were informed about the study purpose and procedures and invited to participate. Oral consent was obtained by each participant who was informed about the rights to withdraw at any time without giving any reason. Data were considered confidential and be used only for this study.

Fieldwork:

The execution of the study was through four phases, called assessment, planning, implementation, and evaluation. This lasted for 4 months from the beginning of March 2019 to the beginning of July 2019.

Think about It! A quiz was given before the start of and after the completion of the social empowerment training program to measure for any change in the children's perceptions .

Assessment phase :

It involved the pre-intervention data collection for baseline assessment after obtaining necessary official permissions. The researchers met with parents of children to obtain their consent that met the inclusion criteria, explained to them the aim of the study, and invited them to participate. The researchers then read and explained each item of the study scales to the children and asked them to record their responses to each item. The time spent completing the interview and filling the questionnaire ranged from 35 to 45 minutes .

Planning phase :

Depend on the results obtained from the assessment phase; the researchers designed the intervention program and sessions contents according to the identified children's needs and given the related literature. The program consisted of four main components. The first component was for giving a theoretical Introduction of ADHD and what is ADD/ADHD? The second component of the intervention program was focused on the gifts of having ADD/ADHD, the third component powerlessness versus empowerment, the fourth component included empowerment with feelings, the firth component included empowerment with teachers, the sixth component included empowerment at home, the seventh component included empowerment with classmates, and the eighth component included school success - learn to relax (**The Centers for Disease Control and Prevention, 2018; Mastoras, Saklofske, Schwean, & Climie, 2018).**

Implementation phase :

The intervention was implemented in the form of 8 sessions. The STARS Program Social empowerment training and responsibilities program was modified to three one-hour weekly sessions to facilitate the attendance of children and to specifically focus on this small group of children's needs. Therefore, the social empowerment training support group met over three consecutive weeks for one hour each week.

The primary goals of the intervention are to help children with ADHD realize that others share the same difficulties and to increase the extent to which the children like themselves as individuals. The curriculum includes behavioral and cognitive strategies that empower the child with ADHD to learn to consciously choose to pause before acting, a valuable and powerful life skill. Children need opportunities in smaller groups to present their ideas in a venue where they will be listened to, heard, and understood (**Harter, 2013**).

The STARS curriculum (**Frame, 2003**) consists of eight 1-hour sessions. Each session includes warm-up activity exercises designed to build group cohesion. Throughout the sessions, children begin to find similarities of interest and feelings with each other.

The researchers present the content via discussion questions and encourage the children to identify their specific problems, thoughts, ideas, and solutions. The other students take turns sharing their beliefs. The researchers do not offer advice but monitor the discussion to keep the children on the topic. Discussion questions were developed to guide each session topic and to provide the students a framework in which to share difficulties, ideas, and solutions.

Discussion questions focus on the topic of each session logically: identification, feelings, and strategies. Various activities are suggested for each session. These include role-playing, group work, Website searches, drawing, music, and activity sheets. An evaluative component was written for each session topic to assist the children in having a document to capture the essence of the session topic content and discussion. The STARS program is not an educational program but a support group for preadolescents. The role of researchers is to act as a facilitator, encouraging the support group concept of children helping each other

Session one :

It includes the diagnosis and impact of ADHD. Content to be covered incorporates identification of the positive and negative characteristics of having ADHD, identifying successful people with ADHD, discussing how impulsive actions lead to the giving away of personal power and therefore contribute to feelings of powerlessness, and developing skills and opportunities to increase feelings of empowerment. The warm-up activity includes group process procedures to assist the students in getting to know one another. An example of a discussion question for this session is, "How does having ADHD affect you?" Evaluation of the session includes the student listing two characteristics of ADHD by the end of the session .

Session two :

It identifies the gifts of having ADHD. Information to be covered includes identifying successful people who have been identified to exhibit the characteristics of ADHD and identifying strong negative feelings and developing strategies to manage these feelings, discussing difficulties experienced in the school setting with teachers and developing solutions to regain control, and discussing difficulties with organization and developing strategies to be more organized. The warm-up activity consists of a "Find-A-Friend" exercise that enables the participants to find commonalities among the group as far as favorite color, school subject, TV show, etc. Discussion questions include naming the identified famous person with ADHD and listing the positive attributes the individual possesses. Evaluation includes written documentation of the above .

Session three:

The objective of the current session is to examine the concepts of powerlessness and empowerment. Content includes a discussion of the importance of children with ADHD to learn strategies of empowerment in several settings and with different people and discussing difficulties with peer relationships and problem-solving solutions, developing an understanding of what is a good friend and identifying relaxation techniques to decrease impulsivity and feelings of tension and stress. The warm-up activity pairs students together to discover strengths in each other. Discussion questions include naming a situation when the student felt powerless and discussing the subsequent action carried out by the student. For the evaluation of this session, the children draw a picture of a situation when they acted

impulsively and then write a story about different choices they could have made .

Session four :

Empowerment of your feelings is the topic of session four which included information to be covered emphasizes that feelings need to be identified and managed appropriately. During the warm-up activity, students are asked how they are feeling today on a scale of 1–5 (5 being great and 1 being terrible). The student with the lowest number shares the reason why he or she is a 1 or a 2, and other students are allowed to share solutions to the problems discussed. Students are encouraged to describe situations that make them angry during the discussion question period. The evaluation worksheet for this session includes the child naming five healthy ways to express his or her anger .

Session five:

The topic of session five is empowerment with teachers. Information to be covered examines positive strategies that assist students in their interaction with teachers. The students play the "High/Low Game" as part of their warm-up activity. During this game, the students discuss high and low moments they experienced throughout the school day. One example of a discussion question is, "what problems do you experience when interacting with your teachers?" For evaluation, the students list three behaviors that could improve their interactions with teachers .

Session six:

Session six is to examine empowerment strategies at home. Content includes a discussion of common difficulties experienced when interacting with family at home and developing several solutions. Information to be covered encompasses organizational skills such as laying out clothes, packing lunches, and having their school bag completely packed the night before. The warm-up activity includes having the students name the people and pets they live with at home. Discussion questions include asking the children where they do their homework and what they can do at home to mchake mornings easier. The evaluation includes a worksheet listing where they will do their homework each night .

Session seven:

The objective of session seven is to explore empowerment with classmates and talk about the qualities of a good friend. Information to be covered includes common difficulties experienced with peer relationships. The warm-up activity pairs the students and allows them to discuss what they like about current friends. One discussion question is, "If the child wanted to become friends with someone new, how child would go about it?" The evaluation consists of students naming three characteristics of being a good friend .

Session eight :

Session eight is entitled "School Success—Learn to Relax" Information covered includes relaxation techniques such as deep breathing and counting to ten. During the warm-up activity, students are advised to line up in the order of their birthday, starting with January 1 and ending with December 31. The students must find alternative ways to communicate without speaking or writing notes. Students quickly discover the use of sign language. Discussion questions include, "How does your body let you know you are tense?" and "what can you do to relax in school?" For this session, the students write a story about how they can relax while at school as part of the evaluation.

Evaluation phase :

The evaluation of the effect of the intervention program was done after one month of its implementation by comparing the change in children's self-concept through applying the same tools used in the pretest (II).

Statistical Analysis:

Data entry and statistical analysis were done using SPSS 20.0 statistical software package. Cronbach alpha coefficient was calculated to assess the reliability of the developed tools through their internal consistency. For quantitative variables, mean and standard deviation were expressed. Qualitative categorical variables were compared using the chi-square test. Spearman rank correlation was used for the assessment of the interrelationships among quantitative variables and ranked ones. To identify the

independent predictors of parents' scores, multiple linear regression analysis was used .

Results

Table (I): illustrated that more than half of the study group (60%) and the control group (60%) were in the same age group from 9 years to less than eleven years old with a mean age (8.36±3.47 and 8.36±2.28) respectively. Less than two-thirds of the study and control groups (60% & 62%) respectively were males. As regards the level of education, more than two-thirds of the study and control group children (72% and 76%) respectively were in the fourth level of education. concerning the level of education, Less than two-thirds of the study and control group children (60% & 62%) respectively were second in birth order. There were no statistically significant differences among study and control groups children regarding all aspects of demographic characteristics.

Table (2): Portrayed that as athletic competence more than three-quarters of the study group (76%) and in the control group (78%) did not do very well at all kinds of sports.. regarding conduct/morality (76% & 78%) of the study and control groups respectively did not behave very well most of the time. As regards peer acceptance, (73% and 75%) respectively did not have a lot of children. Concerning physical appearance, (73% & 70%) of the study and control group children respectively with their physical appearance is different. In addition, (57% and 53%) of the study and control group children respectively do very well in their classwork concerning scholastic competence

Table (3): demonstrated an improvement in all domains of functioning, of study group children regarding athletic competence, conduct/mortality, peer acceptance, physical appearance, and scholastic competence. Overall, these results demonstrate an improvement in self-concept post-social empowerment training and responsibilities program implementation. While, there was no improvement found among children in the control group regarding self-concept five domains of Think about It! Quiz.

Regarding the multivariate regression model for self-concept five domains score, **table (4)** indicates that the self-concept five domains score and the peer acceptance were its statistically significant predictors. On the other hand, child age, gender, education, and birth order were statistically significant positive predictors.

Table (1): Distribution of the studied children according to their demographic characteristics (n=50)

Demographic characteristics	Study group n=25		Control group n=25		Chi-square T test	p- value
	No	%	No	%		
Age						
• 9-> 11	15	60	15	60	.273	0.765
• 11-> 13	10	40	10	40		
Mean± SD	**8.36±3.47**		**8.36±2.28**			
Gender						
• Male	15	60	16	62	0.020	1.000
• Female	10	40	9	38		
Educational level:						
• **Fourth level**	16	62	15	60	1.207	0.750
• **Fifth level**	5	22	7	26		
• **Sixth level**	4	16	3	14		
Birth order						
• First	0	0.0	0	0	1.754	0.626
• Second	18	72.0	19	74		
• Third	2	6.0	1	4		
• Fourth	5	22.0	5	20		

Table (2): Distribution of the studied children according to their Think about It! Quiz responses (n=50)

Items	Study group n=25				Control group n=25			
	Yes		No		Yes		No	
	No	%	No	%	No	%	No	%
Athletic Competence								
I think that I could do well at just about any new sports activity I haven't tried before.	9	35	16	65	8	32	17	68
I do very well at all kinds of sports.	6	24	19	76	5	22	20	78
I feel that I am better than others my age at sports.	6	24	19	76	6	23	19	77
I wish that I could be a lot better at sports.*	8	34	17	66	8	32	17	68
I don't do well at new outdoor games.*	17	68	8	32	16	65	9	35
Conduct/Morality								
I behave very well most of the time.	6	24	19	76	5	22	20	78
I usually do the right thing.	11	44	14	56	11	44	14	56
I do things that I know I shouldn't do.*	14	54	11	46	13	52	12	48
I usually act the way that I am supposed to.	12	47	13	53	11	44	14	56
I usually get into trouble because of the things that I do.*	20	78	5	22	19	76	6	24
Peer Acceptance								
I would like to have a lot more friends.*	10	40	15	60	9	36	16	64
I am popular with others my age.	9	36	16	64	8	32	17	68
I am always doing things with a lot of kids	7	29	18	71	7	27	18	73
I wish that more people my age like me.*	8	32	17	68	8	32	17	68
I have lots of friends.	7	27	18	73	6	25	19	75
I find it hard to make friends.*	14	58	11	42	14	56	11	44
Physical Appearance								
I am happy with my height and weight.	15	59	10	41	14	57	11	43
I am happy with the way that I look.	8	32	17	68	8	32	17	68
I wish my physical appearance (how I look) were different.*	6	25	19	75	7	27	18	73
I wish my body were different.*	8	68	17	32	17	68	8	32
I wish that something about my face or hair looked different.*	18	73	7	27	18	70	7	30
I think that I am good-looking.	9	36	16	64	8	32	17	68
Scholastic Competence								
I feel that I am very good at my schoolwork.	11	44	14	56	11	44	14	56
I often forget what I learn.*	11	44	14	56	10	40	15	60
I feel like I am as smart as other kids my age.	9	36	16	64	9	36	16	64
I do very well in my classwork.	14	57	11	43	13	53	12	47
I am pretty slow in finishing my schoolwork.*	11	44	14	56	11	44	14	56
I have trouble figuring out the answers in school.*	10	40	15	60	9	36	16	64

Table (3): Comparison of mean score between study and control group as regards self-concept five domains of Think about It! Quiz pre and post social empowerment training and responsibilities program implementation (n=50)

Items	Study group n=25		Control group n=25	
	Pre	Post	Pre	Post
Athletic Competence	17.01±0.03	24.01±.02	18.11±.04	18.03±.23
Conduct/Morality	18.04±.11	23.01±.23	17.21±.43	17.01±.24
Peer Acceptance	19.21±.03	25.01±.31	20.31±.52	20.01±.31
Physical Appearance	20.31±.02	29.01±.41	21.41±.35	21.01±.51
Scholastic Competence	22.01±.01	27.01±.22	22.21±.23	20.01±.71

Table 4: Multiple linear regression model for the self-concept five domains score

Items	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Athletic Competence	388.32	17.22		22.902	<0.001	353.72	434.05
Conduct/Morality	13.06	5.45	0.15	2.292	0.023	1.83	24.36
Peer Acceptance	-10.56	4.78	-0.13	2.219	0.028	-20.33	-1.14
Physical Appearance	0.63	0.15	0.27	4.423	<0.001	0.46	0.92
Scholastic Competence	-2.14	0.18	-0.69	11.116	<0.001	-2.67	-1.66

Discussion:

Attention Deficit Hyperactivity Disorder is the most prevalent childhood behavioral disorder affecting children worldwide. It is estimated that it is found in three to five percent of the school-age population. The STARS curriculum is an easily implemented, flexible nursing intervention for children with ADHD through sessions. Therefore, the children need to be reminded the day before and the day of the session to ensure attendance. Children need interventions that enable them to interact more effectively and that promote adaptive self-evaluations (**Barkley, 2017).**

Children in the support group perceived that they were more popular and accepted by their peers after their participation. The children appeared to bond throughout the eight sessions, validating the importance of a small group intervention format. In addition, there was a sense of purpose to the group, a sense that they were "all in this together," and the members would help each other to arrive at creative solutions to difficult questions and scenarios. A true feeling of friendship developed where the students would see each other **(Mastoras, Saklofske, Schwean, & Climie, 2018).**

The current study results showed that the majority of children in the study group and the control group did not do very well at all kinds of sports, where did not behave very well most of the time, and wish their physical appearance is different. This reflected decreased self-esteem among children with ADHD that cause engagement in high-risk behaviors such as early smoking and drug use.

These results are in the same line with **McQuade, Hoza, Waschbusch**, **Murray-Close, & Owens, (2017)** who studied " Changes in self-perceptions in children with ADHD: a longitudinal study of depressive symptoms and attribution style "and revealed a reduction in self-perception in scholastic competence, social acceptance, and behavioral competence predicted increases in depressive symptoms with a reduction in social acceptance before intervention.

The study findings indicated that there was an improvement in self-concept post-social empowerment training and responsibilities program implementation. These results indicated that the STAR program was effective in improving children's self-concept after program implementation and new awareness with creative skills, and a sense of empowerment can create a positive synergy with virtual benefits to all children.

These results are reliable with the finding of **Shawna, (2021)** who studied " Social Empowerment of Children with Attention Deficit Hyperactivity Disorder " and reported that there were significant improvements and changes in the children after participation in the STAR group and their teachers observed the children appeared to make eye contact with them more often and behaved appropriately in their classroom setting.

These findings are supported by **Mazzone, Postorino, Reale, Guarnera, Mannino, Armando, & Vicari, (2015**) who conducted a study about "Self-esteem evaluation in children and adolescents suffering from ADHD" and observed that children with ADHD benefit when they participated in the STAR support group, improve their

perceptions of themselves, and significantly increased their perception of global self-worth. They felt better about themselves after participating in STAR program through their words, actions, and video presentations. The STAR program support group gave the children choices and options to create new improvements in their lives, and lead them to feel empowered.

Also, these results are supported by **Dumas & Pelletier (2017)** had conducted a study about self-perception in hyperactive children and found that designed a social empowerment support group curriculum for a child with ADHD that was implemented was effective in increasing self-perceptions. Students with ADHD who attended the support group intervention scored significantly higher in perceptions of social acceptance, athletic competence, physical appearance, and global self-worth than the students with ADHD in the control group not attending the support group intervention.

The present study demonstrated an improvement after the implementation of the intervention program. This indicates that the program was very effective and achieved its goal. The positive effect of the program could be attributed to its good content and process. In addition, improving the majority of the children after the STAR program intervention, with significant improvements in children's behaviors, such improvements are undoubtedly due to the program's positive effect on the ability of the researchers to regulate the children's behavior.

Also, this result is similar to **Watabe, Owens, Serrano, & Evans, (2018**) who studied " Is positive bias in children with attention-deficit/hyperactivity disorder a function of low competence or disorder status?" and reported finding ways to connect and empower children with ADHD, can facilitate pattern of recognition and adaptation, help promote higher levels of understanding among ADHD' children.

The findings of the present study revealed regarding the multivariate regression model for self-concept five domains score that the self-concept five domains score and child age, gender, education, and birth order were statistically significant independent positive predictors. As regards education, the results revealed that it was a significant positive predictor of the child-related self-concept five domains score. This indicates that the higher level of education the child has, the lower is the self-concept, with the more prevalent/severe are the symptoms of ADHD.

Conclusion

Based on the results of the current study and research hypotheses, it was concluded that social empowerment training and responsibilities programs affect children with ADHD positively and improve their self-concept.

Recommendations

Future researches are required to develop and refine interventions through applying social empowerment training and responsibilities nursing intervention for children with ADHD to improve their self-concept.

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