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Effectiveness of an instructional program on attitudes of parents toward children with attention deficit hyperactivity disorder in autism centers at Baghdad City

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Abstract---Objective: To find out the effectiveness of instructional program on attitudes of parents toward children with Attention Deficit Hyperactivity Disorder. Methodology: A quasi-experimental study was conducted that included (120) deliberate samples of parents selected from eight autism centers according to the study criteria (60) parents in the centers (Al-Safa, Al-Marwa, Basmat Amal, Al-Tahadi), and (60) parents in the centers (Al-Rami, Al-Rahman, Al-Takhassusi, Al-Saeeda Family). The samples were divided into two groups (60) parents (study group) who participated in the instructional program and (60) parents (control group) who did not participate in the program. The groups are almost identical in their properties. The instructional program was implemented in four steps, the first step (pre-test) is to assess parents' attitudes towards children with ADHD before implementing the program, and the second step is to implement the program and then two tests and the time period between the first and second test is two weeks. The validity and reliability of the questionnaire were determined by a group of experts and through a pilot study of ten parents. Descriptive and inferential statistics were used to analyze the data. Results: The results of the study indicated that the general evaluation of the parents' attitudes about ADHD for the study sample before implementing the program was a lack of basic Attitudes about ADHD, but after implementing the program the result was: The study indicated a high effectiveness in the Attitudes of the parents Matters between the study group as indicated by the high significance associated with the "Greenhouse-Geisser" correction at p-value = 0.001. A significant difference was found for the study group on the

first and second pretest and posttest over time, compared with the control group. Recommendations: The study recommended that there be training programs in autism center increase to attitudes of the parents related to how to deal with children with ADHD and other psychiatric disorders.

Keywords---effectiveness, instructional program, attitudes, parents, attention deficit hyperactivity disorder, autism centers.

Introduction

ADHD is a mental illness of high epidemiological and clinical importance, embedded in a complex socio-cultural context. Attention deficit hyperactivity disorder (ADHD) is reportedly the most pervasive disorder of childhood affecting approximately 3% to 5% of school-aged children with prevalence rates increasing significantly over the past two decades. Children with ADHD experience symptoms of inattention, hyperactivity, or impulsivity above and beyond what is developmentally appropriate. While it is usually first diagnosed in childhood, many children diagnosed with ADHD demonstrate symptoms that persist into adolescence and adulthood (Marsha, Gerard, and Farid, 2015).

Attention-deficit/hyperactivity disorder stands for attention deficit hyperactivity disorder. It is a medical condition. A person with ADHD has differences in brain development and brain activity that affect attention, the ability to sit still, and self-control. Attention-deficit/hyperactivity disorder can affect a child at school, at home, and in friendships (Shirin Hasan, 2017). Attention-deficit/hyperactivity disorder (ADHD) is one of the most common mental disorders affecting children. Symptoms of ADHD include inattention (not being able to keep focus), hyperactivity (excess movement that is not fitting to the setting) and impulsivity (hasty acts that occur in the moment without thought). An estimated 8.4% of children and 2.5% of adults have ADHD. ADHD is often first identified in school-aged children when it leads to disruption in the classroom or problems with schoolwork. It can also affect adults. It is more common among boys than girls (Danielson et al., 2018).

Social and emotional difficulties are common especially in children with attention-deficit/hyperactivity disorder, social difficulties exist in a variety of forms and can lead to conflicts with the family and problems with peers; emotional difficulties often include poor emotional self-regulation, aggression, and reduced empathy; these difficulties can contribute to overt, physician-diagnosed, comorbid mental health disorders, including depression, anxiety, and conduct disorder (Al-Amarei, 2020).

Methodology

The study was carried-out in eight autism centers at Baghdad City (four in Al-Rusafa and four in Al-Karkh). Al- Rusafa autism centers includes; Al-Safa autism center, Al – Marwa autism center, Al-Basmat Amal autism center and Al-Tahady autism center. Al-Karkh autism centers includes; Al-Ramy autism center, Al-

Rahman autism center, Al-Takhasosy autism center and Al- Happy Family autism center. The study conducted in Baghdad City, which includes two sectors (Al-Rusafa sector and Al-Karkh sector). Al-Rusafa sector contains ten autism centers and also, Al-Karkh sector contains ten autism centers. The study was conducted in four autism centers, out of ten schools for both sectors. Filling of the questionnaire and presentation of program was carried on in the computer lab and hall, which contain screen for viewing videos and presentation of the program. Non- probability sampling (purposive sample) of (120) parents (60) parent from (Al-Safa, Al – Marwa, Al-Basmat Amal, and Al-Tahady), and (60) parents from (Al-Ramy, Al-Rahman, Al-Takhasosy, and Al- Happy Family), were selected from eight autism centers and in accordance with the study criteria. The samples were divided into two groups (60) parents (study group) who participated in the instructional program and (60) parents (control group) who didn't participate in the program. The groups are almost matched relative to their characteristics.

Ethical Considerations

The Institutional Review Board (IRB) at the University of Baghdad, College of Nursing approved the study to be conducted. The study protocol meets both the global and the Committee on Publication Ethics (COPE) standards of respecting human's subjects' rights.

Results

Table (1): Distribution of the Sample According to their Personal Characteristics

No.	Characteristics		Study group		Control group	
			f	%	f	%
1	Age (year)	20 – 24	8	13.3	20	33.3
		25 – 29	16	26.7	11	18.3
		30 – 34	15	25	12	20
		35 – 39	12	20	10	16.7
		40 – 44	9	15	7	11.7
		<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
		<i>M±SD</i>	<i>31.17 ± 6.32</i>		<i>29.62 ± 6.52</i>	
2	Gender	Male	35	58.3	33	55
		Female	25	41.7	27	45
		<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
3	Residency	Urban	60	100	60	100
		Rural	0	0	0	0
		<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
4	Age of inflicted child	≤ 3 years	9	15	11	18.3
		4 – 6 years	38	63.3	34	56.7
		7 ≤ years	13	21.7	15	25
		<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
		<i>M±SD</i>	<i>5.28 ± 1.75</i>		<i>5.22 ± 1.79</i>	
5	Gender of inflicted child	Male	36	60	42	70
		Female	24	40	18	30

	<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
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No: Number, f: Frequency, %: Percentage, M: Mean, SD: Standard deviation

Table (1) shows the observed frequencies, percent's of socio – demographical characteristics variables:- The descriptive analysis in table (1) shows that parents in the study group are with age 31.17 ± 6.32 years in which the highest percentage seen with age group 25-29 years (26.7%), while the parents in the control group are with age 29.62 ± 6.52 years and the highest percentage of them are seen with age group 20-24 years.

Regarding gender, more than half of parents are males who are fathers of children as seen 58.3% in the study group and 55% in the control group. The residency refers that all parents in the study and control groups are resident at urban (100%). The age of inflicted children with ADHD is refers to 4-6 years among parents in the study group (63.3%) with mean age (5.28 ± 1.75) years and among those in the control group (56.7%) with mean age (5.22 ± 1.79) years. The gender of inflicted children was refers they are males among (60%) in the study group and (70%) in the control group.

Table (2): Distribution of the Sample According to their Socio-demographic Characteristics

No.	Characteristics		Study group		Control group	
			f	%	f	%
1	Marital status	Married	48	80	47	78.3
		Divorced	9	15	10	16.7
		Widowed\er	3	5	3	5
		Separated	0	0	0	0
		<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
2	Monthly income (Iraqi dinar)	< 200000	1	1.7	1	1.7
		201000 - 400000	20	33.4	20	33.4
		401000-600000	18	30	18	30
		601000-800000	14	23.3	14	23.3
		801000-1000000	5	8.3	5	8.3
		1000000 <	2	3.3	2	3.3
		<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
3	Perceived monthly income	Insufficient	10	16.7	11	18.3
		Barely sufficient	20	33.3	19	31.7
		Sufficient	30	50	30	50
		<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
4	Education	Doesn't read & write	0	0	0	0
		Read & write	2	3.3	2	3.3
		Primary school	9	15	15	25
		Intermediate school	22	36.7	15	25
		Secondary school	6	10	12	20
		Institute	6	10	5	8.3
		College or above	15	25	11	18.4
		<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>
5	Occupation	Employee	13	21.7	12	20

	Free work	30	50	28	46.7
	Retired	0	0	2	3.3
	Jobless/housewife	17	28.3	18	30
	<i>Total</i>	<i>60</i>	<i>100</i>	<i>60</i>	<i>100</i>

No: Number, f: Frequency, %: Percentage

The descriptive analysis of socio-demographic variables for parents in table (2) shows that more of parents are still married as in the study group (8%) and control group (78.3%). Regarding monthly income, the highest percentage refers to 201000 – 400000 Iraqi dinars among parents in both groups; the study (33.4%) and control group (33.4%). The perceived monthly income refers to barely sufficient monthly income among parents in the study group (33.3%) and control group (31.7). Regarding level of education, the parents in the study group are seen graduated from intermediate school (36.7%) while parents in the control group are graduated from primary and intermediate school with the same percentage of 25%. The occupational status refers that parents are working free works as seen among 50% of parents in the study group and 46.7% in the control groups.

Table (3): Distribution of the Sample According to their Sources of Information about ADHD

No.	Source		Study group		Control group	
			f	%	f	%
1	Do you have information about ADHD?	No	42	70	42	70
		Yes	18	30	18	30
		Total	60	100	60	100
2	Do you heard about ADHD?	No	49	81.7	49	81.7
		Yes	11	18.3	11	18.3
		Total	60	100	60	100
3	Have you dealt with ADHD child previously?	No	50	83.3	51	85
		Yes	10	16.7	9	15
		Total	60	100	60	100
4	Do you read about ADHD?	No	33	55	34	56.7
		Yes	27	45	26	43.3
		Total	60	100	60	100
5	Sources of reading	None	2	3.3	2	3.3
		Internet	26	43.3	26	43.3
		Social media	23	38.3	22	36.7
		Television	1	1.7	1	1.7
		Books	5	8.3	6	10
		Journal	3	5	3	5
		Total	60	100	60	100

No: Number, f: Frequency, %: Percentage

The table (3) shows that only 30% of parents in the study group and 30% in the control group are having information about ADHD. Only 18.3% of parents in the study group and 18.3% in the control group are heard about ADHD. Only 45% in the study group and 43.3% in the control group are read about ADHD. The

sources of reading information show that the highest percentages were distributed for internet and social media as seen among parents in the study group (43.3% and 38.3%) and parents in the control group (43.3% and 36.7%).

Table (4): Overall Assessment of Parents' Attitudes toward Attention Deficit Hyperactivity Disorder among Study and Control Group

Levels of Attitudes	Study Group (N= 60)												Control Group (N=60)											
	Pre-test				Post-test I				Post-test II				Pre-test				Post-test I				Post-test II			
	f	%	M	S. D	f	%	M	S. D	f	%	M	S. D	f	%	M	S. D	f	%	M	S. D	f	%	M	S. D
Low	0	0			0	0			0	0			47	78.3			4	80			5	90		
Moderate	60	100	33.08	8.813	4	6.7	65.70	4.893	6	10	65.62	5.453	13	21.7	32.85	8.495	1	20	32.60	8.273	6	10	30.37	6.717
High	0	0			5	93.3			5	90			0	0			0	0			0	0		
Total	60	100			60	100			60	100			60	100			60	100			60	100		

f: Frequency, %: Percentage, M: Mean of total score, SD Standard deviation of total score

Low= 21 – 35, Moderate= 36 – 49, High= 50 – 63.

This table reveals that all parents in the study group show moderate attitudes toward ADHD (100%) during the pre-test time; their attitudes increased to good during the post-test 1 and 2 (66.7% and 61.7%). The parents in the control group show moderate attitudes toward ADHD during the pre-test time (81.7%) that still the same during the post-test 1 and decreased to low during the post-test 2.

Table (5): Repeated Measure Analysis of Variance (RM-ANOVA) Test for Parents' Attitude toward Attention Deficit Hyperactivity Disorder among Control Group (N=60)

Descriptive		Within-Subjects Effect							
Attitude	Mean (S.D)	Source	Type III Sum of Squares	df	Mean Square	F	P-value	Sig.	Partial Eta Squared
Pre-test Post-test I Post-test II	38.78 (5.539) 38.72 (5.573)	Time							
		Sphericity Assumed	.233	2	.117	1.000	.371	N.S	.017
		Greenhouse-Geisser	.233	1.339	.174	1.000	.344	N.S	.017
		Huynh-Feldt	.233	1.359	.172	1.000	.345	N.S	.017
		Lower-bound	.233	1.000	.233	1.000	.321	N.S	.017
	27.42 (3.937)	Error(Time)							
		Sphericity Assumed	13.767	118	.117				
		Greenhouse-Geisser	13.767	79.011	.174				
		Huynh-Feldt	13.767	80.170	.172				
		Lower-bound	13.767	59.000	.233				

S.D: Standard Deviation, df: Degree of Freedom, f: F-statistics, P-value: probability value, Sig: Significance, H.S: High Significant

This table shows that there is no significance has been associated with “Greenhouse-Geisser” correction. The descriptive data show no differences in mean score of parents' attitudes among control group during pre-test, post-test 1, and post 2.

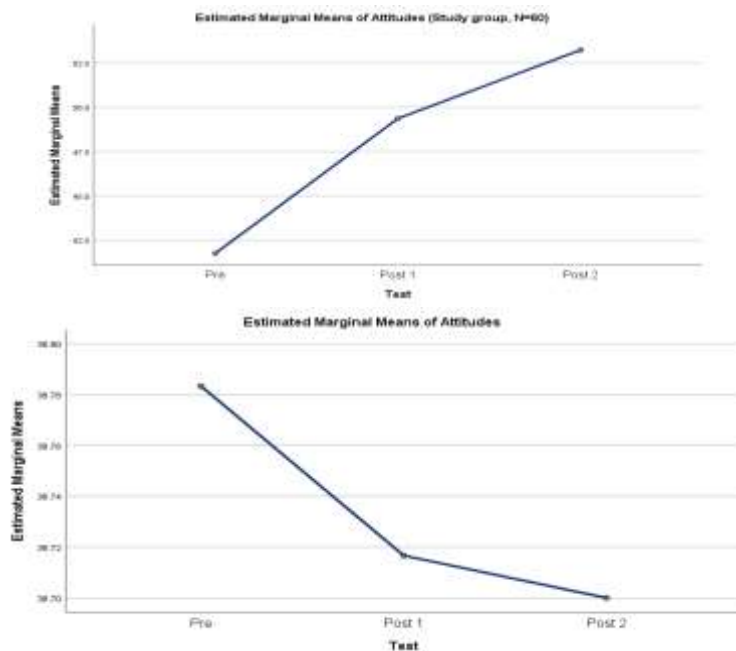


Figure (1): Estimated Marginal Mean for Parents' Attitudes toward Attention Deficit Hyperactivity Disorder among Study and Control Groups.

This figure shows the noticeable increasing of parents' attitudes over the three times among the study group while among the control group; the attitudes show declined with no significant difference.

Discussions

Personal Characteristics of the Study Sample (Table 1)

Results revealed most of parents in the study group are with age (31.17 ± 6.32) years in which the highest percentage seen with age group 25-29 years (26.7%). This finding reflect important approach, young parents' has been found to be challenging for the attention and meta cognitive capacities of most children with ADHD. This is similar to the results done by Mikkelsen et al., (2017) entitled "Parental age and attention-deficit/hyperactivity disorder (ADHD)" mention that children born by parents aged 20 years or younger had more than twice the risk of being diagnosed with ADHD compared with children with parents between 26 and 30 years of age. When comparing full siblings the associations were attenuated, but we found a trend of increased risk of ADHD with decreasing maternal age, which was not seen for paternal age. Also, the result of the study done by Henriquez-Henriquez et al., (2020) mention that the average age of the women in the case group was 40.63 ± 5.03 SD in a range of 28 to 54 years, and in men 43.20 ± 5.96 SD in a range of 30 to 65 years. The women in the control group had an average age of 42.48 ± 4.33 SD years, with ages ranging from 32 to 55 years; that of men in the control group was 44.05 ± 5.47 SD with an age range of 30 to 65 years. Statistically significant differences were found between groups in the average age of mothers ($p = .03$), which was lower in the group of mothers of children with ADHD. No significant differences were found in the ages of fathers between the two groups ($p = .42$).

Regarding gender, more than half of parents are males who are fathers of children as seen (58.3%) in the study group. This is similar to the results done by Anastopoulos et al., (2018) entitled "Impact of child and informant gender on parent and teacher ratings of attention-deficit/hyperactivity disorder" mention that a significantly higher percentage of female parents (7.7%) identified male children as being at risk for ADHD relative to male parents (4.1%). Such results suggest that informant gender may play a clinically meaningful role in assessing ADHD in children and adolescents, which is consistent with the developmental literature addressing gender stereotypes in children.

The residency refers that all parents in the study and control groups are resident at urban (100%). The findings of this study disagree with the study done by Azazy et al., (2018) mention the scores of parents who lived in urban areas were lower than those who lived in rural areas. The majority of the sample lived in urban areas ($n = 106$; 84.8%) The age of inflicted children with ADHD is refers to 4-6 years among parents in the study group (63.3%) with mean age (5.28 ± 1.75) years. Kim et al., (2017) mention Attention deficit hyperactivity disorder (ADHD) is 1 of the most common mental disorders in children between the ages of 5 and 15 years and affects approximately (8%–12%) of children worldwide .The gender of inflicted children was refers they are males among (60%) in the study group. The findings of this study are slightly different than done by Kim et al., (2017) entitled

"Prevalence of Attention-Deficit/Hyperactivity Disorder and its Comorbidity among Korean Children in a Community Population", who found that the most ages of inflicted children with ADHD was (11.7%) in boys and (5.2%) in girls, with an overall prevalence of (8.5%). The findings of this study are agree with study done by Young et al., (2020) entitled " Females with ADHD: An expert consensus statement taking a lifespan approach providing guidance for the identification and treatment of attention-deficit/ hyperactivity disorder in girls and women", who found that ADHD is diagnosed approximately 3 times more often in boys than in girls. The gender ratio in this study was similar with the previous reports. It is reported that this difference between genders may reflect either a difference in susceptibility or that females with ADHD are less likely to be diagnosed than males. However, the underlying physiological mechanism that causes ADHD is still not thoroughly understood and remains under investigation.

Amel A., Amel S., and Erfan, (2018) "Effectiveness of Parents-Focused Cognitive-Behavioral Therapy on Attention Deficit Hyperactivity Disorder Symptoms, Obesity and Self-Esteem of Overweight Children with Attention Deficient Hyperactivity Disorder" mention that the results of this study, the average age of the children was 8.4 ± 1.8 years; nearly 67.5% of the children were male and 32.5% were female; the average age of children in the experimental group was 8.2 ± 1.8 years and of children in the control group was 8.6 ± 1.7 years ($P = 0.43$); there were 13 (65%) boys and 7 (35%) girls in the experimental.

Distribution of the Sample According to their Socio-demographic Characteristics (Table 2)

The descriptive analysis of socio-demographic variables for parents shows that more of parents are still married as in the study group (8%) and control group (78.3%). The result of this study disagree with the study done by Azazy et al., (2018) mention that a significantly higher prevalence of ADHD was found among children whose parents were separated or divorced . This can be interpreted by the fact that children whose parents are separated or divorced do not receive proper attention and care from parents, and this leads to a greater incidence of ADHD symptoms. This was not the case in children being raised by a single parent in bereavement.

Regarding monthly income, the highest percentage refers to 201000 – 400000 Iraqi dinars among parents in both groups; the study (33.4%) and control group (33.4%). The perceived monthly income refers to barely sufficient monthly income among parents in the study group (33.3%) and control group (31.7). The result of the study agree with study done by Altszuler et al., (2016) mention to the study used data from the Pittsburgh ADHD Longitudinal Study (P Young adults with ADHD experienced greater financial dependence on family members ($p < 0.05$) and the welfare system ($p < 0.01$) and had lower earnings ($p < 0.05$) than comparisons. ADHD diagnostic status, education attainment, and delinquency were significant predictors of financial outcomes. A projection of lifetime earnings indicated that ADHD group participants could expect to earn \$543,000–\$616,000 less over their lifetimes than comparisons. Due to the propensity of individuals with ADHD to underreport problems, the data are likely to be underestimates.

Regarding level of education, the parents have children with ADHD in the study group are seen graduated from intermediate school (36.7%) while parents in the control group are graduated from primary and intermediate school with the same percentage of (25%). The result of the this study agree with the study done by Cervantes-Henríquez, Acosta-López, and Martínez-Banfi, (2020) mention that the study group, mothers who had completed high school or primary school were predominant, while in the control group the majority had a university degree (55%). The mothers of ADHD children had a significantly lower education than mothers of the control group ($p < .01$). There was no clear predominance of education level of the fathers of children in the case group; however, in the control group over half of the fathers, 53.3% ($n = 32$), had university degrees. Fathers of children in the case group had lower education than fathers without ADHD children, and these differences were statistically significant ($p < .01$).

The occupational status refers that parents are working free works as seen among (50%) of parents in the study group and (46.7%) in the control groups. A study done by Azazy et al., (2018) mention that children with unemployed fathers showed a higher prevalence of ADHD, while those with unemployed mother showed lower prevalence. This might be attributed to the traditional roles of each parent, i.e., father as the head of household, and mother as the homemaker. Finally, Attention deficit hyperactivity disorder (ADHD) its impact on society is enormous in terms of financial cost, stress to families, interference with academic and vocational activities, as well as negative effects on self-esteem. Due to the substantial burden of this disease, an accurate should provide information about ADHD for improving the quality of public health mental services for evaluation and treatment of ADHD.

Distribution of the Sample According to their Sources of Information about ADHD (Table 3)

The result of the study (30%) of parents in the study group and (30%) in the control group are having information about ADHD. Only (18.3%) of parents in the study group and (18.3%) in the control group are heard about ADHD. Only (45%) in the study group and (43.3%) in the control group are read about ADHD. The sources of reading information show that the highest percentages were distributed for internet and social media as seen among parents in the study group (43.3% and 38.3%) and parents in the control group (43.3% and 36.7%). The result of the study agree with the study done by Climie and Henley, (2018) mention that parents of children with ADHD report using a wider range of information sources than their children to obtain ADHD knowledge; as such, 49% of parents and 51% of children reported the internet to be their preferred source of information over a medical professional. Also, the study done by Bussing et al., (2012) mention that parents used a wide range of ADHD information sources while adolescents relied on social network members and teachers/school. However, parents and adolescents expressed similar strong preferences for the Internet (49% and 51%) and doctor (40% and 27%) as ADHD information sources. Also, the study done by Dodangi, Vameghi, and Habibi, (2017) reveals to the most common source of parent's information about ADHD was TV. The parent's knowledge about the symptoms of the disorder was relatively good. But in regard to diagnosis, treatment and prognosis of the disorder, they have very low

knowledge and even incorrect beliefs. The parent's knowledge significantly correlated with their educational level ($p=0.01$).

Discussion of the overall assessment of parents' attitudes toward attention deficit hyperactivity disorder among study and control group (Table 4)

This table reveals that all parents in the study group show moderate attitudes toward ADHD (100%) during the pre-test time; their attitudes increased to good during the post-test 1 and 2 (66.7% and 61.7%). The parents in the control group show moderate attitudes toward ADHD during the pre-test time (81.7%) that still the same during the post-test 1 and decreased to low during the post-test 2. The results of this study agree with the study done by Amiri et al., (2016) "Knowledge and Attitude of Parents of Children with Attention Deficit Hyperactivity Disorder towards the Illness" mention that 82.72% of the parents had a positive attitude towards ADHD. A positive correlation was found between parents' attitude towards ADHD and their overall knowledge (identification, etiology, treatment, consequences and prevalence dimensions), ranging from 0.12 to 0.36 ($P < 0.50$). Age, gender, and place of residence did not have a correlation with parents' attitude towards ADHD.

Al-Mohsin et al., (2020) " Saudi mothers' perception of their children with attention-deficit hyperactivity disorder in Dammam, Al-Qatif, and Al-Khobar cities, Saudi Arabia" mention that the attitude of mothers toward ADHD, consisting of 12 statements, each scored on a 3-point Likert scale ranging from 1 to 3. Individual scores ranged from 5 to 15 (attitude toward the child) and from 7 to 21 (attitude of mothers toward the ADHD condition). Attitude raw scores, percent scores, and mean percent scores for each area and overall attitude were calculated. Attitude was categorized as follows: mothers scoring less 50% had a negative attitude, from 50% to 80% were neutral, and >80% were positive.

Repeated Measure Analysis of Variance (RM-ANOVA) Test for Effectiveness of Instructional Program on Parents' Attitude toward Attention Deficit Hyperactivity Disorder among Study Group (N=60) (Table 6)

The result of this table displays that analysis of RM-ANOVA test indicate that instructional program was highly effective on parents' behaviors among the study group evidenced by high significance associated with "Greenhouse-Geisser" correction at $p\text{-value}=0.001$. It is clear out of descriptive the noticeable increasing of mean score on parents' knowledge during post-test 1 and 2 that indicate the effectiveness of instructional program. The result of this study agree with the study done by Ghasemi et al., (2020) " Effectiveness of Rehabilitation Package Based on Executive Performance of Signs (Child Behavior in Class, Participation and Group Cooperation, attitude towards Authorities) in Children with Attention Deficit / Hyperactivity Disorder: Pilot Randomized Cont" The results showed that Dawson and Guare educational package significantly improved the signs of ADHD including child behavior in the classroom, participation and group cooperation, and attitudes towards power authorities ($P \leq 0.001$ for all variables). Also, the result of the study done by Hosseinnia, Mazaheri, and Heidari, (2020) mention that the absolute and relative distribution of the average number of attitude of

teachers. The mean and standard deviation 59.2% of teachers had the desired attitude, and the total average score of their attitude was 4.14 ± 14.9 (out of 20).

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