

PARENTING STYLES AND CLINICAL VARIABLES AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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Abstract

Attention-deficit/hyperactivity disorder (ADHD) is a common childhood developmental disorder characterized by unsuitable levels of inattention and/or hyperactivity/impulsivity that cause functional deficiency in various surroundings so this study aims to assess the parenting styles and the clinical variables among children with ADHD. It has been carried out using a comparative research design. The subjects were constituted of children with ADHD who attended the child out-patient clinic at Mansoura University Hospitals throughout four months and another matched group (age, gender, residence and free from psychiatric disorder) of 50 children who attended Sherbine Elementary School had been compared to children with ADHD. Data collection was conducted during the period from December 2016 to March 2017. Control parenting style was the most prevalent parenting style that used by parents of ADHD children, followed by Oscillator parenting style, and differential parenting style " with mean of 34.56, 16.89, and 16.69 respectively, while " Over protective parenting style, and positive parenting style " are the least expressed by them with mean of 16.37, and 11.2 respectively. There is a highly statistically significant correlation between parenting styles and the clinical variables among children with ADHD.

Keywords: ADHD, clinical variables, parenting style

Introduction:

ADHD is a confused issue of deterioration of mind capacities, which loads our general public with huge budgetary expenses. Its notable highlights are inattention, hyperactivity, and impulsivity.[1].It is very predominant, influencing roughly 5.29% for kids and teenagers and 4.4% in adulthood. People with ADHD are at high hazard for creating other mental comorbidities in youth, pre-adulthood, and adulthood, males are twice as predisposed to be influenced with ADHD as females. [2].

According to DSM V, The individuals with ADHD demonstrate a constant example of inattention and additionally hyperactivity-impulsivity that

meddles with working or improvement and is portrayed by attention deficiencies, hyperactivity, or impulsiveness that is conflicting with progressive level. [3].Numerous ADHD kids experience difficulty adjusting their conduct and pursuing the standards anticipated for their age, which is a basis of difficulties in adjusting to their advancement settings. In this sense, it ought to be emphasized that the impacts of ADHD are not restricted to the child only but rather can influence their nearest social settings and, obviously, their intimate setting. [4].

Additionally, these kids endure much developmental incapacity in societal behavior, emotional progress,

communication, language, and speech. Research demonstrates that these kids can cause spousal debate and are a wellspring of uneasiness to their parents. [5].

According to **Barkley (2005)** [6] ADHD causes severe, lasting issues in adulthood for people, for example, underemployment, criminality, and loss of efficiency. These issues influence the people determined to have ADHD, as well as a general public that will be contrarily influenced.

The impacts of ADHD affect the public in different manners; a few impacts are prompt, for example, early school issues, though others might be have long term impacts, for example, later guiltiness. People with ADHD ordinarily experience issues that result in scholastic under attainment. [7].

On other hand, a kid's ADHD affect social family life, spousal relationships and feelings about child rearing that correlated with a more prominent influence on the intimate's public activity and lower investment in get-togethers, diminished arrangement between parents about kid parental collaborations, and additional undesirable feeling and approaches of parents toward their youngster. [8].

On the other hand, parents as the nearest and the main socialization agent of a kid are in a superior position to screen and diagnose such disorder. Parenting is the manner toward proceeding and enhancing the physical, emotional, societal, and scholarly improvement of a child from earliest stages to adulthood. Parenting alludes to the parts of raising a youngster nearby the biological correlation; moreover a good parent-child relationship is basic for healthy development. [9].

Parents precise styles of collaborating with their kids on a

continuum; these child rearing styles incorporate degrees of demandingness and of responsiveness. [10]. The demandingness attribute alludes to high behavioral expectations of the parent towards the kid. [11]. Mental and physical over-burden for parents of ADHD kids frequently lead to the utilization of wrong child rearing styles as an attempt to decrease practices which are considered disruptive. [12]. These parents have more pressure and lower adjustment capacity they are inclined to demonstrate negative practices toward their kids .Insecurity feelings in the family in light of marital clashes influences on kid conduct, emotional issues so that marital clashes as a stressor factor along with decrease in child emotional resistance can result in child emotional issues . [13].

Significance of the study:

Parenting styles have an essential role in enhancing the performance of youngsters with ADHD and their families. So it is important to compare the parenting styles of parents of youngsters with ADHD and normal kids as when the parenting styles in parents of children with ADHD is determined, we can address the wrong child rearing styles and subsequently symptoms will be progressed. [14].

The nurse's role is fundamental in helping groups of youngsters with ADHD; the attendant's job needs information and tolerance, tuning in to parents and instructors, and suppliers. The treatment plan ought to incorporate direction, surveying parental learning about treatment, and help the two parents and instructors. The medical attendant's job in teaching parents as respects psychosocial intervention is essential which will help increment their consistence and viability to the psychosocial intercessions. Likewise, there are a few parents of youngsters with

ADHD have a higher rate of psychopathology. Along these lines, treatment for those parents might be vital before or related to parent preparing that have psychopathology. [15].

Aim of the study:

To assess the parenting styles and the clinical variables among children with Attention-deficit/hyperactivity disorder.

Subjects and Method:-

Study Design:-

A comparative research design was used in this study

Setting:-

The study was carried out in the child Psychiatric Out-patient Clinic at Mansoura University Hospitals which comprised of documentation region that contain patient's records, lobby for sitting, four facilities, meeting room that might be utilized additionally for patient discussion and medical caretaker's office and worker office. The center is given by a unique drug store that is worried about giving endorsed prescription to the patients. They fulfilled the following **inclusion criteria:**

- Children fulfill criteria for ADHD according to DSM-5 that diagnosed by psychiatrist.
- Age from 6-12 years
- Sex : both sex
- IQ > 80 to exclude effect of intellectual disability that diagnosed by psychologist.

Exclusion criteria:

- Children with neurological impairments.
- Previous diagnosis of autistic spectrum disorder or mental retardation.
- Parents who refuse to participate in the study

Tools: Four tools were utilized for data collection

Tool (I):Socioeconomic status scale for health research in Egypt: It was

originally developed by Fahmy& El Sherbini (1983)^[16] and has 7 domains with a total score of 84; they are Education and cultural, Family, Economic, Occupation, Family possessions, Home sanitation and Health care domains ^[17].

Tool (II): Mini International Neuropsychiatric Interview for children (MINI-KID):

The Mini-Kid initially created by Sheehan et al, (1998) ^[18] as a proceeded with form to the grown-up rendition. The Mini-Kid pursues the criteria of Diagnostic and Statistical Manual "rendition IV" of mental issue and screens for 17 Axis one issue "mood disorders, anxiety disorders including OCD,attention deficit disorder, conduct, alcohol/substance abuse or dependence, eating disorders and psychotic disorders". The Mini-Kid as a universal measure has its dependability and legitimacy of youngster and youthful psychopathology. Organization of the Mini-Kid expends a brief timeframe around (5-15 minutes). The test-retest (intra-rater) dependability of The Mini-Kid is high and high for all mental referenced disorders ($\alpha=.64$). The Arabic adaptation was translated by Ghanem& Salah (1999) ^[19].

Tool III: Conner's Behavior Rating Scale-Parent (Conner's CBRS – P):

The Conner's CBRS parent shapes survey behaviors, feelings, scholarly, and social issues in kids from the time of 3–18. The shape is accessible in one exhaustive length; the scale contains is prescribed for introductory assessments and finish re-assessments. The scale is scored given to (very high > (70), high (61-70), moderate (40-60), low (30- 39), very low <30). The Arabic variant was translated by El-Bhairy (2011) ^[20].

Tool V: Parenting Style Assessment scale:

The parenting style assessment scale is 60items scale, developed by El-maksod (2011) ^[21]. It has

five domains, they are Differential parenting style (10 items), Control (10 items), Oscillator (10 items), Over protectiveness (10 items), and Positive parenting styles (20 items) rated on a 2 - point scale ranging from 1 (no) to 2 (yes).

Ethical consideration:

- Research Ethical Committee of the Faculty of nursing that offered consent to lead the investigation in the wake of assessing every single moral thought.
- A letter from the Dean of the Faculty was sent to the head of the department of psychiatry, Mansoura University Hospitals so as to help and encourage completing the study.
- Every parent participated in the study gave consent of approval for participating in the study after explaining the aim and guaranteeing secrecy and privacy for them. Their entitlement to pull back at any phase of the examination was guaranteed and disclosed to them and wouldn't affect on their children's treatment.

Statistical analysis:

Upon accomplishment of data collection, data were formulated and analyzed using statistical package for social sciences (SPSS) program version 21, significant statistical analysis was used to check the attained data. Descriptive and inferential statistics were done such as mean and standard deviation; frequency; percentage; chi square test; and logistic regression. The level of significance was considered at the 5% level ($P = 0.05$).

Results:

Table (1) demonstrated that concerning age, more than half of the studied groups are between 6 to 9 years old (61%). As regard gender, more than half of the studied groups are male (53%). As regard the residence, more than half of the studied patients (65%) are living in

rural areas while (35%) are living in urban. more than one third of the parents were employee and had secondary education and there was statistically significant difference between study and control group as regard family history of ADHD as positive family history of ADHD is 80% in study group and 20 % in control group $P < .001$.

Table 1:-Socio-demographic characteristics and clinical data of the studied groups

Socio-demographic Items	Study group (No=100)		Control group (No=50)		X ²	p-value
	No	%	No	%		
Sex						
Male	53	53	27	54	.013	.908*
Female	47	47	23	46		
Age(in years)						
6: <9	61	60	31	62	.014	.525*
10: <12	39	40	19	38		
Educational level of parents						
Illiterate, Read and write	4	4	2	4	.015	0.526*
Primary	38	38	19	38		
Secondary	46	46	23	46		
University	12	12	6	12		
Occupation of parents						
Unemployed	4	4	2	2	.014	.525*
Employee	43	43	21	42		
Worker	19	19	9	19		
House wife	32	32	16	32		
Other	2	2	2	4		
Residence						
Urban	35	35	18	36	.015	0.904*
Rural	65	65	32	64		
Yes	8	32	4	16		
Family history of ADHD						
No	20	20	41	82	53.104	>.001
Yes	80	80	9	13		

Table (2):demonstrated that there was statistically significant difference between

Study and control group as regard to socioeconomic levels as less than the one third of studied parents of ADHD children have low socio economic level while less than one third of control group had middle socioeconomic level.

Table 2:- Socioeconomic scales levels of studied groups

Socioeconomic scales Levels	Study group (No=100)		Control group (No=50)		X ²	p-value
	No	%	No	%		
Very Low	27	27	10	20	2.597	0.458
Low	31	31	13	26		
Middle	21	21	16	32		
High	21	21	11	22		

Table 3:- shows that on the part of Comorbid psychiatric disorders among cases of studied children social phobia, conduct disorder, anorexia nervosa, dysthymia, specific phobia, Post-traumatic stress disorder, were the most common Comorbid psychiatric disorders expressed by the studied ADHD children with percentage of (32.7%), (32.7), (32.7), (29.3), (29.3) and respectively, while Post-traumatic stress disorder was the least expressed by the studied ADHD children with percentage of (27.5).

Table 3:- Comorbid psychiatric disorders among cases of studied children.

Comorbidities	N (58)	total percentage of comorbidities
Major depressive disorder	-	-
Suicidality	-	-
Dysthymia	17	29.3
Manic episode	-	-
Panic disorder	-	-
Agoraphobia	-	-
Separation anxiety disorder	-	-
Social phobia	19	32.7
Specific phobia	17	29.3
Post-traumatic stress disorder	16	27.5
Alcohol dependence	-	-
Substance dependence (Non-alcohol)	-	-
Tourette's disorder	-	-
Conduct disorder	19	32.7
Oppositional defiant disorder	-	-
Anorexia nervosa	19	32.7
Bulimia nervosa	-	-
Generalized anxiety disorder	-	-
Adjustment disorder	-	-
Medical, organic, drug cause ruled out	-	-
Pervasive developmental disorder	-	-

Table 4:- illustrated that Differential parenting style, Oscillator parenting style, Over protectiveness parenting style and Positive parenting style are the most prevalent parenting style that are used by parents of ADHD children " with mean of 16.69, 16.89, and 16.37 respectively while control parenting style is the most prevalent parenting style that is used by parents of normal children with mean of 38.72 respectively. And there is statistically significant difference between case and control as regard to all parenting styles except overprotective parenting style ($P \leq 0.001$).

Table 4:- Mean difference of parenting styles between study and control groups.

parenting styles	Study group (No=100)	Control group (No=50)	t	p-value
	Mean \pm SD	Mean \pm SD		
Differential parenting style	16.69 \pm 1.96	12.96 \pm .2	13.417	<.001
Control parenting style	34.56 \pm 2.97	38.72 \pm .45	9.846	<.001
Oscillator parenting style	16.89 \pm 2.25	13.02 \pm .62	11.911	<.001
Over protective parenting style	16.37 \pm 2.59	16.06 \pm .51	.837	.404
positive parenting style	11.2 \pm 1.46	10 \pm 0	5.816	<.001

Discussion:

The current study showed that the most prevalent age group was ranging between 6 to 9 years old constituting more than two thirds of that studied patients. This result is consistent with **Al Hamed & Sabra (2008)** ^[22] who reported that the highest prevalence was noticed in the age group 6-9 years followed by 9-11 years.

Results of the current study revealed that more than half of the studied subjects were male. This result is consistent with **Tracey (2009); Skogli, Teicher & Andersen (2013)** ^[23] who reported that

males have higher attention deficit hyperactivity disorder than the males in clinical samples. Although, this result is inconsistent with **Alikor, Briggs & Okoh (2015)** ^[24] who revealed that the females have higher attention deficit hyperactivity disorder than the males.

The current study revealed that there was statistically significant difference between patients and control group as regard family history of ADHD as there is positive family history of ADHD in 80% of study group and 20 % of control group. This finding is in the same line with **Starck, Grünwald, & Schlarb (2016)** ^[25] who showed that the majority of ADHD children have at least one parent had positive family history of ADHD. Similarly, **Bishry, Ramy, El- Shahawi, El- Sheikh & El- Missiry (2014)** ^[26] reported that ADHD correlates positively with family history of ADHD.

Essentially, ADHD represents a huge burden as expanded medical expenses and indirect expenses identified with nonattendance. It also imposes vague expenses regarding diminished personal satisfaction for patients and in addition their families (**Singh, & Lawson, 2017**) ^[27].

The current study demonstrated that there was statistically significant difference between study and control group as regard to socioeconomic levels as one third of studied parents of ADHD children have low socio economic level while more than one third of control group had middle socioeconomic level. This may be due to that kids from low financial foundations are at more serious danger of a scope of negative results for an amazing duration course than their friends. This result was consistent with **Russell & Ford (2015)** ^[28] who confirmed that there were associations between a few pointers of low

financial dimension, specifically budgetary challenges, social lodging residency, more youthful maternal age, single-parent status and ADHD in the child. However, this result was inconsistent with **Zwirs, Burger, Schulpen & Wiznitzer (2007)** ^[29] who reported that there was no major variance as respect to societal status between patients of ADHD and controls.

The current study demonstrated that conduct disorder, social phobia, anorexia nervosa, dysthymia, specific phobia, Post-traumatic stress disorder, were the most common comorbid psychiatric disorders expressed by the studied ADHD children, while disorder; Pervasive developmental disorder was less expressed by the studied ADHD children. This may be explained by genetic overlap, decrease coping abilities, low self-confidence and low socio economic level. This result was consistent with **Jensen (2015)** ^[30] who announced that ADHD youngsters had something like one mental confusion comorbid to ADHD and may have at least two comorbid issues. The most frequent comorbid disorders were disorders of conduct, autism spectrum disorders, intellectual disability, and specific developmental disorders of language.

High-quality parent-child relationship is basic for healthy progression so the child rearing style assumed by parents enormously impact development, improvement and future life chances of a kid (**Derakhshanpour et al., 2016**) ^[5].

Results of the current study revealed that control parenting style was the most prevalent parenting style among parents of ADHD children, followed by Oscillator parenting style, and differential parenting style, while " Over protective parenting style, and positive parenting style " were the least expressed by them. And there was

statistically significant difference between study and control group as regard to all parenting styles except over protective parenting style as these parenting styles were more used by parents of study group. This may be explained by genetic overlap, low educational level, low socioeconomic level, and that parents of ADHD children encounter large amount of tension that led them to assume negative attitudes toward their children and use these parenting style. This result was consistent with **Stevens (2014)**^[31] who reported that parents of children with ADHD tend to exhibit control parenting style. Also, This result was consistent with **Miftari, Lecaj , Jakupi&Metushi (2017)**^[32] who showed that there are huge connections among ADHD and child rearing styles That is, there was a negative connection between having an ADHD child and applying positive child rearing style, while the relationship was certain for the control child rearing style.

Conclusion

Based on the findings of the present study, it can be concluded that the majority of ADHD children have positive family history of ADHD, low IQ; their parents have low educational level, low socioeconomic level and from rural areas. The control parenting style was the most prevalent parenting style among parents of ADHD children and there is a highly statistically significant correlation between parenting styles and the clinical variables among children with ADHD.

Recommendations

In the light of the outcomes of the present study, the following recommendations are recommended, psych-educational programs about effective parenting styles and the impact of these parenting style on ADHD, school nurses must be an essential part of the

process of increasing awareness about ADHD through improving the service delivery model for affected children and their families, training program for nurses is needed to enable them to give appropriate guidance and support to parents of ADHD to enhance outcomes for their children.

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