EFFECT OF PSYCHOLOGICAL INTERVENTION ON STRESS AMONG MOTHERS OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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ABSTRACT

Background:

Caregiving is a complex activity, the physical, emotional, and psychological health of children, as well as their family and the community at large. Attention Deficit Hyperactivity Disorder is linked to problems with family functioning, problems in the parent-child bond, worse parenting efficacy, and higher levels of parental stress.

Objective:

To evaluate the effect of Psychological intervention on stress among mothers of children with attention deficit hyperactivity disorder.

Methodology:

A Quasi-experimental (two group's pretest- posttest) study was conducted at Developmental OPD of Public Sector Tertiary Care Hospital Lahore Punjab. The study participants were mothers of children with Attention Deficit Hyperactivity disorder. A sample of n=45 participants in each intervention and control group was recruited. A validated questionnaire of Mothers stress Index scale consisted of 36 items was used.

Data were collected and entered into SPSS version 21 for analysis. Majority of the mothers were aged 26-30, with 52.2% having a family size of 3-6 persons and 47.7% having more than 6 persons in family. The pre intervention mean ranks of mothers stress was (52.73) which significantly decrease after intervention (23.31) (p value 0.000). Also it was found in control group that the pre assessment mean ranks were (38.27) which significantly increase in post assessment (67.69) (p value 0.08).

Conclusion:

It can be concluded that there is an effect of psychological intervention on stress in mothers of children with ADHD.

Key words: Attention deficit hyperactivity, mothers stress reduction, Children

INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is a Neurodevelopmental disorder is characterized by symptoms of impulsivity, hyperactivity, and inattention. ADHD has a negative effect on both academic and social functioning.

The physical, emotional, and psychological health of children, as well as their family and the community at large, are all negatively impacted by attention deficit hyperactivity disorder, which also has a significant effect on children's behavior. ADHD is linked to problems with family functioning, problems in the parent-child bond, worse parenting efficacy, and higher levels of parental stress[1].

Out of the most commonly reported causes of ADHD i.e. genetic, neurological, biological and environmental risk factors[2]. Brain gut axis bacterial genus may generate allergen and effect neurotransmitter release that lead to ADHD[3]. Similarly, ADHD remain prevalent globally and are also speculated to have a high occurrence in Pakistan although very little information is available[4]. The prevalence of ADHD childern in Pakistan is around (34.5%), (47.0%) in male and (52.9%) in females[5.]

It has been frequently seen that the Families of childern with ADHD have many challenges that influence on family functioning and handling disruptive behaviors of childern greatly effect parents well-being that cause negative or poor parenting[6.] Concurrently, stress among caregivers has a significant role in determining their workload and psychological pressure[7]. Likewise, children's at home, failing to fulfill requests and directions and repeatedly switching from one unfinished task[8]. Furthermore, talking too much and being unable to enforce regulations by being silent or controlling one's behavior[9].

In Pakistan, a study was conducted in 2018 by Maheen. In which out of 77 ADHD children's, that are found out that around 53.2% were suffering from ADHD inattention, 23.3% childern were found out to be suffering from ADHD hyperactivity and 23.3% were found out to be combined type[5]. Nurses play a crucial role on teams that offer support, treatment, and diagnostic services to children's and their families at home and at school[10]. A nurse's duties include educating patients and their parents and listening to medical professionals[11.]

Concurrently, according to the results of numerous studies and reviews of the literature that looked at the effects of psychosocial intervention in treating ADHD led to the conclusion that it is an evidence-based treatment[12]. The parent training programme for psychosocial intervention, which tackles a variety of important issues, is the first-line therapy for stress management and lowering behavioural symptoms in children with ADHD, according to NICE (National Institute of Health and Clinical Excellence) employed[13].

OBJECTIVE OF THE STUDY

To evaluate the effect of the psychological intervention on stress among mothers of children with attention deficit hyperactivity disorder.

MATERIAL AND METHODS

A quasi-experimental study was carried out (two group pre-post design) in developmental OPD of the Public Sector Tertiary Care Hospital Lahore. The duration of data collection was January 2023, to September 2023. The study participants were mothers of children with ADHD visiting the developmental OPD for treatment. A sample of n=45 participants in each intervention and control group was recruited based on mothers of Children who had ADHD symptoms,4 to 12 years, mild to moderate stage of ADHD. The exclusion criteria was Children with mental retardation, major neurological disorder those children whose mothers were high level of stress and on pharmacological treatment.

A validated questionnaire of Mothers Stress Index short form questionnaire consist of 36 items, on three categories (mothers distress, dysfunctional mother-child interaction, and challenging child) to determine the amount of parental stress (totally disagree–totally agree),the minimum score was 36 and the maximum score was180. The scoring criteria is that if the score lies ≤ 90 or ≤50% considered as No stress, if scores >90-120 or >50%-67% considered as Mild stress, if scores >120-140 or > 67%-78% considered as Moderate stress and if the scores >140 or >78% considered as High/sever stress. The questionnaire was validated from five experts. Content Validity index testing was done to check the content validity. The CVI for

Mothers Stress Index scale questionnaire was (0.8611). On (10%) of the total individuals, a pilot study was undertaken to assess the items' viability, objectivity, application, and clarity. The pilot study's findings showed that no modifications were required.

The control group not received any intervention and the intervention group received individual counselling sessions (one-on-one) with researcher under supervision of psychologist.

The objectives of intervention was to Improve mother's knowledge, Explore feelings of mothers, Develop motivation, dietary intervention, Encouraging social support, Teach Strategies that was handle challenging behaviour.

The intervention booklet was designed primarily by the researcher using relevant literature. Intervention consist on 16 sessions, each session of the lasted 60 minutes, with one session each week. The programme was run in three phases (Assessment phase, implementation and evaluation phase).The collected data was entered into SPSS version 21 for analysis. For quantitative variables, the results were presented as mean ranks. On the other hand, variables were presented as frequency and percentages. The normality test was applied, to check the normal distribution of data, a Kolmogorov- Smirnov test was used. The results revealed that data were not normally distributed (P value < 0.05). Therefore, a non-parametric test (Mann-Whitney U test) was used to compare scores in pre or post data of both groups for hypothesis testing.

RESULTS

Table 1 demonstrate that Concerning mother's demographic characteristics in this study shows that the majority of the participants age between (26-30 years) was 44(48.5%), (18-25 years) was 25(27.7%), (31-35 years) was 18(20.2%), more than 35 years was 3(3.5%). In this study the number of children's one 30(33.3%), two 38(42.2%), three 12(13.3%) and more than three 10(11.2%) and type of family joint family was 35(38.8%) and single family was 55(61.2%). The majority of the participant's family size 3-6 persons was 47(52.2%) and more than 6 persons was 43(47.7%). Education level illiterate 3(3.3%), matric 20(22.2%), intermediate 16 (17.7%), bachelor degree 30(33.3%) and master's degree 21(23.3%). In this study the residence of mothers of ADHD children's majority in urban 72(80%) and in rural was 18 (20%).

Demographic characteristics	Frequency	Percentage
Age of Mothers		
18-25 years	25	27.7%
26-30 years	44	48.5%
31-35 years	18	20.2%
More than 35 Years	3	3.5%
Number of children's		
One	30	33.3%
Two	38	42.2%
Three	12	13.3%
More than three	10	11.2%
Type of family		
Joint family	35	38.8%
Single family	55	61.2%
Family Size		
3-6 person	47	52.2%
More than 6 persons	43	47.7%
Mother Education level		
Illiterate	3	3.3%
Matric	20	22.2%
Intermediate	16	17.7%
Bachelor degree	30	33.3%
Master's Degree	21	23.3%
Residence		
Rural	18	20%
Urban	72	80%

Table 1: Demographic characteristics of the ADHD Mothers

Table 2 illustrate that the mothers stress level in control group majority of the mothers 24(53.3%) were having mild stress level and 21(46.7%) were having moderate stress level in the pre assessment of control group as it was one of the inclusion criteria. In contrast, in the post assessment, there was no significant decrease scores which turns the mothers toward mild to moderate stress.

Whereas, in intervention group majority of the mothers 37 (82.2**%)** were having moderate stress level and 8(17.8%) having mild stress level in the pre intervention assessment. Participants were needed immediate action because their health and well-being were threatened before the intervention which was improved 29 (64.4%) reported to have no stress and 14(31.1**%)** having mild stress, which was found significant decrease scores after intervention %) reveals in table 2.

	Control Group		Intervention Group	
Mothers stress level	**Pre** **N (%)**	**Post** **N (%)**	**Pre** **N (%)**	**Post** **N (%)**
No stress	0 (0%)	2 (4.4%)	0 (0%)	29 (64%)
Mild stress	24 (53**%)**	15 (33**%)**	8 (17**%)**	14 (31**%)**
Moderate stress	21(46**%)**	28 (62**%)**	37 (82**%)**	2 (4**%)**
High/sever stress	0(0**%)**	0(0**%)**	0 (0**%)**	0 (0**%)**

Table 2: Mothers stress level in Control group versus intervention group (n=45, n=45)

Table 3 Results reveals that comparison of mothers stress in control group the pre assessment mean ranks were (38.27) which increase in post assessment (67.69). There was an increase in mean ranks in post assessment as compared to before in control group as evident by P >0.05.

Whereas pre intervention mean ranks were (52.73) which significantly decrease after intervention (23.31). A significant difference was found between mothers stress scores before and after intervention as evident by P<0.05. Therefore, I can be concluded that there is an effect of psychosocial intervention on mothers stress level in control group.

Score Label	(Mean Ranks) (pre)	(Mean Ranks) (post)	Mann-Whitney U	P-value
Control Group	38.27	67.69	687.000	0.086
Interventional Group	52.73	23.31	14.000	0.000

Table 3: Comparison of pre and Post scores of mothers' stress

DISUSSION

The current study demographics of mothers that majority of mothers were age between (26-30 years) was 44(48.5%) that are contrary to current study because the mother's age were 31-49 years old[14]. According to another study that supports the findings of the current study more than half of mothers were under 35 years old[15]. Another study result agreed with this study that mothers were typically between the ages of 35 and 45[16].

Regarding the number of children's one 30(33.3%), two 38(42.2%), three 12(13.3%) and more than three 10(11.2%) and type of family joint family was 35(38.8%) and single family was 55(61.2%) that are support to present study all the mothers in this study living as single family[14]. In present study the Family size 3-6 persons 47(52.2%) and more than 6 persons was 43(47.7%) that are similar to present study more than half of the families had 3-6 people living in the home[15].

In relation to the level of education, majority of the participants bachelor degree 30(33.3%), master's degree 21(23.3%), matric

20(22.2%), intermediate 16 (17.7%), and illiterate 3(3.3%) that are contrary to present study surprisingly, 5% of the study's mothers had post-secondary education remaining was matric[14]. The current study results further indicates that the residence of mothers of ADHD children's majority in urban 72(80%) and rural was 18 (20%) that are in support to this study by Mother Lives in urban areas in 61.6% of cases[14, 18].

The stress level in mothers in current study reveals that in intervention group stress level in pretest was 37(82.2%) was moderate and 8(17.8%) mild level stress level of stress but stress level in post intervention was 29(64.4%) no stress, 14(31.1%) having mild stress and 2(4.4%) having moderate level of stress. In control group 24(53.3%) mothers were having mild stress level and 21 (46.7%) were having moderate stress level in the pre assessment of control group but in post assessment 2(4.4%) have no stress, 15(33.3%) were having mild level of stress and 28(62.2%) were having moderate level of stress that are in support to current study that 64.3% of carers had severe stress, 21.7% experienced moderate stress, and 13.8% experienced mild stress[7.]

The comparison of mothers stress in pre and post assessment in current study results reveals that in control group the pre assessment mean ranks were (38.27) which increase in post assessment (67.69). There was an increase in mean ranks in post assessment as compared to before in control group as evident by P >0.05. Whereas pre intervention mean ranks were (52.73) which significantly decrease after intervention (23.31). A significant difference was found between mothers stress scores before and after intervention as evident by P<0.05. Therefore, I can be concluded that there is an effect of psychosocial intervention on mothers stress level that are in supports to the current study's findings, which show a substantial difference between the two groups in the mean score for mothers' mental health (P 0.001). Only in the intervention group's mean difference of mental health score did it continue to be significant one month after the intervention (P 0.001)[17.]

According to the findings of another study, the intervention group's stress levels significantly decreased. The results demonstrate that moms' mental health has significantly improved, and their stress and anxiety have decreased.[14]. In 2014, Zeinab N conducted a study's and findings indicate that the mean total scores of parents' stress were statistically significantly lower (P 0.001) than they had been in the past[13].

CONCLUSION:

The study provides evidence that when mothers receive support and learn stress management techniques it targeting mothers stress, enhance their understanding can have a positive impact on the well-being, positive parenting and it can positively influence their ability to cope with challenges associates with parenting a child with ADHD.

RECOMMENDATIONS:

- Future researches should aim to use randomized control trials
- Encourage collaborative care between Nurses, pediatricians, psychiatrists, psychologists and other health care providers to involve in child's care.
- Develop evidence based guidelines based on this study findings to collaborate with other health care professionals to develop evidence based guidelines for nurses and health care administration.

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