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PSYCHOSOCIAL CORRELATES OF BEHAVIOURAL PROBLEMS IN CHILDREN WITH ADHD IN SPECIAL SCHOOLS IN PAKISTAN

PAKİSTAN'DAKİ ÖZEL OKULLARDA OKUYAN ADHD'Lİ (DİKKAT EKSİKLİĞİ HİPERAKTİVİTE BOZUKLUĞU) ÇOCUKLARDAKİ DAVRANIŞ PROBLEMLERİNİN PSİKOSOSYAL BAĞLANTILARI

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Abstract

To determine the psychosocial correlates of behavioural problems in children with ADHD. Moreover to determine gender differences in psychosocial correlates of behavioural problems in children with ADHD.Total 300 children with ADHD including 150 males and 150 females children were selected in different cities of Pakistan. Purposive sampling technique was applied for collection of data. Multidimensional Scale of Perceived Social Support, WHO Quality of Life Scale and Strengths and Difficulties Questionnaire were used. Descriptive statistics, Pearson correlation and independent sample t-test were applied for hypotheses testing. SPSS software version 20 was used for data analysis. Results revealed that social support and quality of life were negatively related with behavioural problems among children with ADHD. Gender differences revealed that male ADHD children were higher on behavioural problems as compared to female that were higher on social quality of life.The study concludes that social support and quality of life have negative association with behavioural problems among children with ADHD. By providing better social support and quality of life mental health of ADHD children can be increased and behavioural problems can be reduced in them.

Keywords: Social support, ADHD, Quality Of Life, behavioural problems, gender, psychosocial correlates.

Özet

ADHD'li çocuklardaki davranış problemlerinin psikososyal yönlerini ve bu özelliklerle bağlantılı cinsiyet farklılıklarını belirlemek amacıyla Pakistan'ın farklı şehirlerinden 150'si erkek, 150'si kız olmak üzere toplam 300 ADHD'li çocuk seçilmiştir. Verilerin toplanması için amaçlı örnekleme tekniği uygulanmıştır. Çok Boyutlu Algılanan Sosyal Destek Ölçeği, WHO Yaşam Kalite Ölçeği ile Güçler ve Güçlükler Anketi kullanılmıştır. Hipotez denemesi için betimleyici istatistikler, Pearson korelasyonu ve bağımsız grup T testine başvurulmuştur. Veri analizi için SSPS (Sosyal Bilimler İstatistik Programı) yazılımının 20. versiyonu kullanılmıştır. Elde edilen sonuçlar, sosyal destek ve yaşam kalitesinin ADHD'li çocuklardaki davranış problemleriyle ters korelasyonlu olduğunu göstermiştir. Cinsiyet farklılıkları, ADHD sorunu olan erkek çocuklardaki davranış problemlerinin sosyal yaşam kalitesi daha iyi olan kız çocuklarına oranla daha yüksek olduğunu ortaya koymuştur. Yapılan bu çalışma, sosyal destek ve yaşam kalitesi ile ADHD'li çocukların sergilediği davranış problemleri arasında negatif ilişki olduğu sonucunu çıkarmıştır. Buna göre, daha iyi bir sosyal destek ve yaşam kalitesi temin edilmesi halinde ADHD'li çocukların zihin sağlığı geliştirilebilir ve yaşadıkları davranış problemleri aza indirgenebilir.

Anahtar Kelimeler: *Sosyal destek, ADHD, Yaşam Kalitesi, Davranış Problemleri, Cinsiyet, Psikososyal Bağlantılar*

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1. Introduction

Attention deficit hyperactivity disorder (ADHD) is the current diagnostic terms used to describe children who present with pronounced and incapacitating difficulties in sustaining attention, modulating activity level and regulating impulses across a number of social contexts such as the family, school and peer group (DSM-5, 2013). In clinical settings, about half of children diagnosed with ADHD qualify for co-morbid diagnoses of either oppositional defiant disorder or conduct disorder (DSM-5, 2013). The psychosocial environment influences the degree to which children with such biological vulnerabilities learn to regulate their attention, activity and impulsivity, or the degree to which such difficulties can be tolerated and managed by members of the child's social system without entailing adverse social consequences (Batool et al., 2014).

A diathesis-stress model of ADHD suggests that families, schools and peer groups which contain family factors in ADHD and emotional disorders members who are intolerant and punitive of inattention, over activity and impulsivity, and who offer limited structured and supportive opportunities for developing self-regulation skills, probably maintain or exacerbate ADHD symptomatology in vulnerable youngsters (Briscoe-Smith & Hinshaw, 2006). In contrast, social systems which contain members who are more tolerant of inattention, over activity and impulsivity, and which offer structured and supportive opportunities for developing self-regulation skills, probably help youngsters vulnerable to ADHD symptomatology to learn self-regulatory skills. Currently the most effective treatment programmes are multimodal, and include psychostimulant therapy to directly address the biological vulnerability to inattention, overactivity and impulsivity, while concurrently training parents and teachers to offer youngsters with ADHD highly structured, supportive and non-punitive opportunities on a daily basis to learn and practice self-regulation (Carr, 2012).

Compared with children without ADHD, children with ADHD have greater difficulties in behavioral, social, and academic functioning and poorer quality of life. Their parents experience more parenting stress, and their mothers are more likely to report symptoms of anxiety and depression (Carr, 2006a). Families of children with ADHD are more likely to report adversely on family activities and parental emotions than families of children without ADHD (Carr, 2006a). Children with insufficient, fragmented, or poor-quality sleep have increased impulsivity, hyperactivity, and aggressiveness as well as problems with mood, academic performance, and neurocognitive functioning (Carr, 2006a). It has thus been postulated that children with ADHD and sleep problems could have poorer cognitive and behavioral outcomes than children with ADHD alone (Carr, 2006b).

Many studies conducted in the past few years in western countries, about ADHD children provided information about their own regions and countries (Chandler, 2014). However, in Pakistan, the work on ADHD children is not sufficient. Due to the poor socio economic status, illiteracy, parental illiteracy and other circumstances, children of Pakistan faced a number of problems including hyperactivity and inattentive behavior and outcome of these problems like behavioral problems, and poor quality of life. The prevalence of ADHD in Pakistan in one study has been found to be around 2.49% (De Graaf et al., 2008). Children with ADHD, compared to children without ADHD, were more likely to have major injuries (59% vs. 49%), hospital inpatient (26% vs. 18%), hospital outpatient (41% vs. 33%), or emergency department admission (81% vs. 74%) (De Graaf et al., 2008). Rates of ADHD diagnosis increased an average of 3% per year from 1997 to 2006 and an average of approximately 5% per year from 2003 to 2011 (Diener & Biswas-Diener, 2008). Boys (13.2%) were more likely than girls (5.6%) to have ever been diagnosed with ADHD (Diener & Biswas-Diener, 2008).

On the basis of previous literature the following hypotheses were formulated;

1. There is negative relationship between social support, quality of life and behavioral problems among children with ADHD.

2. Male children with ADHD are higher on behavioral problems as compared to female children.

2. Methods

2.1. Participants

The sample of the present study consisted of children diagnosed with ADHD (N = 300). Both male children and female children were included in the sample. Purposive sampling technique was used. Ages of children of the sample group ranged between 12 to 16 years and they were studying in standard levels between 5 to 10. Age range is 12-16, from class 5^{th}-10^{th}.. Only those children were selected who were meeting the DSM-V criteria of ADHD. Those children who had co-morbid medical conditions were excluded from the study.

2.2. Psychometric Instruments:

1. Multidimensional Scale of Perceived Social Support was used to assess social support of these 300 children (Goodman, 1997). It is 12-item self-reporting instrument measuring perceived support from three domains: family, friends, and significant other. Respondents scored on a 7-point Likert-type scale for each item ranging from ''very strongly disagree'' to ''very strongly agree''. It is a validated and frequently used instrument in Pakistan (Hussain, 2014).
2. WHO's Quality of Life Scale was used to assesses person's perception of quality of life (Karim et al., 1998). It consists of 26 items. There are four subscales of the scale including physical quality of life, psychological quality of life, level of independence and social quality of life. It is a 5 point Likert-type scale for each item ''strongly disagree'' to ''strongly agree''. It is a validated and used instrument in Pakistan (Mir, 2014)
3. Strengths and Difficulties Questionnaire is a questionnaire measuring behavioural problems

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in children with age of 4-16 years (Patel, 1992). It consists of 26 items in five different domains including negativity, hyperactivity, inattention, anxiety and negative mental health. It is 3 point Likert-type scale for each item ''disagree'' to ''agree''. It is a validated and used instrument in Pakistan (Pavot & Diener, 2003).

2.3. Methodology

Children were randomly selected from different Private and Public Schools from cities of Pakistan. Cities included Islamabad, Haripur, Quetta, Murree and Gujranwala. Those schools were selected where access was attained and granted by school authorities. The school children were approached in their respective institutions to collect the information. Teachers, guardians, parents of children and participating children were informed about the purpose, significance, and implications of the study. They were ensured of the confidentiality as to the information obtained from research and reassurance was given to keep their personal identities concealed. Then written informed consent was obtained from the participant children after explaining full scope of study before administering the questionnaires. There was great difficulty to acquire data from children suffering from ADHD as children with ADHD find it difficult to cooperative or express. And since most of the children were school based, searching out for children suffering from ADHD was a tenacious task.

3. Results

The present study aimed to investigate the relationship between social support, quality of life and behavioral problems among children with ADHD. Statistical Package for Social Sciences (SPSS) version 14 was use to statistically analyze the collected data. Correlation, t-statistics and alpha reliability were applied to evaluate the hypothesis of the study.

Table 1: Psychometric Properties for all Study Variables

Variables	Items	M	SD	Range	α
Peer group	4	10.11	2.82	2-15	.70
Family support	4	11.18	2.71	1-16	.79
Significant other support	4	10.39	2.53	4-15	.72
Social support	12	31.75	5.60	18-42	.81
Physical quality of life	7	16.65	3.65	4-23	.71
Psychological quality of life	6	15.05	3.22	5-23	.75
Social quality of life	3	7.90	1.71	4-11	.80
Environmental quality of life	8	16.84	3.38	9-27	.77
Quality of life	26	65.34	7.85	48-82	.78
Negativity	8	7.73	2.87	1-13	.65
Hyperactivity	6	2.52	1.03	1-4	.76
Attention	4	2.22	1.29	1-6	.73
Anxiety	2	20.32	4.02	7-29	.81
Mental health	5	39.5	7.77	34-45	.72

In the results Table 1 shows psychometric properties for all study variables. Results revealed that all the variables used in study were reliable.

Table 2 shows that peer group has significant positive relationship with social support, family support, significant others support, physical quality of life, psychological quality, level of independence, and social quality of life whereas significant negative relationship with negativity, hyperactivity, inattention and negative mental health. Family support have significant positive relationship with significant other support, social support, physical quality of life, psychological quality of life, level of independence, and social quality of life whereas significant negative relationship with negativity, hyperactivity, inattention and negative mental health. Significant other support has positive significant relationship with social support, physical quality of life, social quality of life, level of independence and social quality of life whereas significant negative relationship with negativity, hyperactivity, inattention and negative mental health. Social support has significant positive relationship with physical quality of life, psychological quality of life, level of independence, and social quality of life whereas significant negative relationship with negativity, hyperactivity, inattention and negative mental health. Physical quality of life has significant positive relationship with psychological quality of life, level of independence, and social quality of life whereas significant negative relationship with negativity, hyperactivity, inattention and negative mental health. Psychological quality of life has significant positive relationship with level of independence, and social quality of life whereas significant negative relationship negativity, hyperactivity, inattention and negative mental health. Level of independence has significant positive relationship with social quality of life whereas significant negative relationship with negativity, hyperactivity, inattention and negative mental health. Social quality of life has significant positive relationship with quality of life whereas negative relationship negativity, hyperactivity, inattention and negative mental health. Quality of life has significant negative relationship with negativity, hyperactivity, inattention and negative mental health. Negativity has significant positive relationship with significant negative relationship with hyperactivity, inattention and negative mental health. Hyperactivity has significant negative relationship inattention and negative mental health. Inattention has significant negative relationship with negative mental health.

Table 3 from the study indicated gender differences in psychosocial correlates and in behavioural problems among children with ADHD. Results indicated that male were significantly higher on hyperactivity and anxiety whereas female were high on social quality of life. On peer group, family support, significant other, social support, physical quality of life, psychological quality of life, environmental quality of life, quality of life, negativity, attention and mental health results were non-significant.

Table 2: Correlation between Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Peer group	-	.23*	.19*	.59**	.33**	.24*	.25**	.19*	.33**	.32**	-.19*	.19*	-.19*	.33**
2. Family Support		-	.48**	.71**	.28*	.24*	.38*	.36**	.53**	-.20*	-.25*	.30**	-.26*	.33**
3. Significant Other Support			-	.76**	.32**	.23*	.41*	.32**	.32**	.29**	.22*	.19*	-.26*	.30**
4. Social support				-	.45**	.19*	.30**	.40**	.28**	.25**	.28**	.19*	.30**	.45**
5. Physical quality of life					-	.20*	.33**	.32**	.58**	.30**	-.22*	.24*	.66**	.67**
6. Psychological quality of life						-	.32**	.19*	.68**	-.19*	.23**	.19*	.55**	-.25*
7. Level of independence							-	.25**	.27**	-.21*	-.22*	.32**	-.20*	-.22*
8. Social quality of life								-	.69**	.21*	.24**	.23*	.46**	.35**
9. Quality of life									-	.23**	.32**	.33**	.67**	-.23*
10. Negativity										-	.19*	.28*	-.19*	.67**
11. Hyperactivity											-	.19*	.30**	.56**
12. Inattention												-	.23*	.23*
13. Anxiety													-	.26*
14. Negative mental health														-

*P < .05, **p < .01

Table 3: Gender Differences for all Study Variables

	Male (n = 150)		Female (n = 150)			
Variables	M	SD	M	SD	t(298)	Cohen's d
Peer group	10.07	2.89	10.16	2.78	.14	.03
Family support	11.48	2.09	10.86	3.25	1.01	.23
Significant other support	10.28	2.30	10.52	2.81	.41	.09
Social Support	31.87	5.07	31.60	6.23	.21	.04
Physical quality of life	16.59	3.45	16.71	3.91	.14	.03
Psychological quality of life	15.23	3.33	14.84	3.14	.54	.12
Level of independence	6.91	1.56	8.52	1.54	.81	1.04
Social quality of life	17.21	3.45	16.41	3.29	1.03	.24
Quality of life	62.45	8.32	64.66	7.72	2.81*	.62
Negativity	7.97	2.54	7.44	3.22	.81	.18
Hyperactivity	2.73	.73	2.28	1.25	1.97*	.44
Attention	2.30	1.17	2.13	1.41	.59	.13
Anxiety	20.70	3.82	19.89	4.24	1.99*	.20
Mental Health	39.50	7.77	12.11	2.3	.34	7.13

*P < .05

4. Discussion

The present study is designed to investigate the psychosocial correlates of behavioural problems among children with ADHD in few selected school in various cities of Pakistan. The results showed that the questionnaires used in the study were reliable. Pearson Correlation was employed and results revealed a significant negative correlation between social support and quality of life with behavioural problems among children with ADHD. The findings were approved by researches that social support and quality of life has largely impact on the life of children with ADHD (Schachar & Tannock, 2002). The findings were approved by researches that those with ADHD have greater difficulties in behavioral, social, and academic functioning and poorer quality of life. Their parents experience more parenting stress, and their mothers are more likely to report symptoms of anxiety and depression. Families of children with ADHD are more likely to report adversely on family activities and parental emotions than families of children without ADHD (The WHOQOL Group, 1995).

Findings of our research revealed that male children with ADHD were higher on behavioral problems as compared to female children. Result also indicated that male children scored significantly higher on hyperactivity and anxiety as compared to female that were higher on social quality of life. The findings of our study was supported by previous researches that boys are about three times more likely than girls to have symptoms of ADHD (Zimet et al., 1988). ADHD is more common among boys than among girls; pre-adolescents than adolescents; and urban than rural children. In clinical settings, about half of children diagnosed with ADHD qualify for co-morbid diagnoses of either oppositional defiant disorder or conduct disorder (Zito et al., 2007).

5. Conclusion

Findings showed that social support and quality of life are correlates of behavioural problems among children with ADHD. Therefore, increasing social support and quality of life of ADHD children can results in lower behavioural problems in them. It is important to let the parents and educators know that if their students or children are in the condition of hyperactivity and lack of attention, they need to be more attention as it is more possibility to have ADHD too. Although, the result indicated that there is a significance difference on gender in behavioral problem.

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If the individuals have the symptoms of ADHD such as, lack of attention and hyperactivity, also affecting many aspects of his/her life functioning. Educators and parents stand an important role to encourage seeking for help and treatment. Therefore, this study can be useful for students, researchers, psychologist, counselor and health professionals who are interest to investigate the problems of ADHD children.

References

Batool, N., Tahir, S., Riaz, MN. (2014). Quality of life spiritual wellness and delinquent tendencies among adolescents. Pakistan Business Review., 16(2), 204-218.

Briscoe-Smith, AM., Hinshaw SP. (2006). Linkages between child abuse and attention-deficit/hyperactivity disorder in girls: behavioral and social correlates. Child abuse & neglect., 30(11), 1239-1255.

Carr, A. (2006). Handbook of Clinical Child and Adolescent Psychology: A Contextual Approach (Second Edition). London: Routledge.

Carr, A. (2006). Involving fathers in psychology services for children. Cognitive and Behavioural Practice.,13, 94-97.

Carr, A. (2012). Positive mental health: a research agenda. World Psychiatry., 11(2), 100.

Chandler, J. (2014). Oppositional Defiant Disorder and Conduct Disorder in Children and Adolescents: Diagnosis and Treatment,. Retrieved from. http://www.klis.com/chandler/pamphlet/oddcd/oddcdpamphlet.htm.

De Graaf, R., Kessler, RC., Fayyad, J., Ten Have, M., Alonso, J., Angermeyer, M., Posada-Villa, J. (2008). The prevalence and effects of adult attention-deficit/hyperactivity disorder (ADHD) on the performance of workers: Results from the WHOs World Mental Health Survey Initiative. Occupational and Environmental Medicine, 65(12), 835-842.

Diagnostic and Statistical Manual of Mental Disorders (Fifth edition), (2013). American Psychiatric Association, Washington.

Diener, E., Biswas-Diener, R. (2008). The science of optimal happiness. Boston: Blackwell Publishing.

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research Note. Journal of Child Psychology and Psychiatry, 38, 581-586.

Hussain, G. (2014). Social support, quality of life and depression in diabetes (ADCP Research Report). Department of Psychology. Royal Group of Colleges Gujranwala.

Karim, R., Shakoor, A., Azhar, L., Ali, A. (1998). Prevalence and Presentation of ADHD among the attendees of Child Psychiatric Clinic. Mother & Child, 36(1), 71-5.

Mir, H. (2014). Social support, quality of life and behavioural problems among children with ADHD (ADCP Research Report). Department of Psychology. Royal Group of Colleges Gujranwala,.

Patel, N. (1992). Psychological disturbance, social support and stressors: a community survey of immigrant Asian women and the indigenous population. Counseling Psychology Quarterly, 5, 263–277.

Pavot, W., Diener, E. (2003). Well-being (Including life satisfaction). Encyclopedia of psychological assessment, 2.

Schachar, R., Tannock, R. (2002). Syndromes of hyperactivity and attention deficit. In M. Rutter & E. Taylor (Eds.), Oxford: Blackwell, Child and Adolescent Psychiatry, Fourth Edition, 399-418.

Arscott, K., Dagnan, D., Stenfert Kroese, B. (1995) The WHOQOL Group. Development of the World Health Organization WHOQOL-BREF Quality of Life Assessment. Psychological Medicine.

Zimet, GD., Dahlem, NW., Zimet, SG., Farley, GK. (1988). The Multidimensional Scale of Perceived Social Support. Journal of Personality Assessment, 52, 30-41.

Zito, JM., Safer, DJ., Valluri, S., Gardner, JF., Korelitz, JJ., Mattison, DR. (2007). Psychotherapeutic medication prevalence in Medicaid-insured preschoolers. Journal of Child and Adolescent Psychopharmacology, 17, 195-203.

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