



Full Length Research Article

EMOTIONAL AND BEHAVIORAL PROBLEMS AMONG SCHOOL CHILDREN

1*Salwa SH. Abdul-Wahid, 2Mehdi SH.Al-Zuheiry and 3Karim Al-Jashamy

¹Department of Community Medicine, Diyala Faculty of Medicine, Diyala, Iraq

²Department of Pediatrics, Diyala Faculty of Medicine, Diyala, Iraq

³Department of Pathology, Faculty of Medicine, SEGI University College, Kola Damansara, Malaysia

ARTICLE INFO

Article History:

Received 07th February, 2014
Received in revised form
18th March, 2014
Accepted 20th April, 2014
Published online 20th May, 2014

Key words:

Behavioral disorders;
Conduct disorder;
Emotional disorder;
Rutter Child Behavior questionnaire (RBQ);
Revised Rutter Scale (RRS);
School children.

ABSTRACT

Background: Behavioral disorder is a condition that is caused by individuals experiencing changes in their thoughts and emotions which manifest as challenging behaviors.

Objectives: To find out the prevalence rate of behavioral disorders and emotional disorders among school children and the relationship of these disorders with personal variables as well as to socio-demographic factors of the child's family.

Design and Subjects: A cross sectional study was conducted at Baquba City during the educational year 2010-2011. A total of 1500 school children of both male and female were selected by random sampling from nine primary schools. Pupils from the 4th, 5th and 6th of study years at the age between 10-12 years old were included in this study. Revised Rutter Scale (RRS) has been used as a mean for identification and measurement of behavior disorders.

Results: Behavioral disorders were found in 24.6% of the school children. Male to female ratio was (2:1). The overall of prevalence rate of conduct disorder was 13.8%. Males to females ratio was (3.2:1). Whereas The overall of prevalence rate of emotional disorders was 10.8, and the ratio of males to females was (1.2:1). The highest percent (45.7%) for conduct disorder was found among school children in the fifth class, while the highest percent (39.5%) for emotional disorder was found among school children of fourth class. The results also reveal that there is a statistical significant association between behavior disorders and some individual factors related to the child and factors related to his family. In conclusion, the present study showed a significant behavioral disorder among school children. Also there was evidence of complex interaction between individual and family factors.

Copyright © 2014 Salwa et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Childhood is recognized in psychiatry as a period of vulnerability and progressive development toward adult personality and character. Variations in children's behaviors reflect a blend of intrinsic biologic characteristics and the environments with which the children interact (Robert *et al.*, 2004). Behavioral problems in childhood are very common and any one deal with children is likely to encounter many of them (William *et al.*, 2011). Behavioral disorders in children and adolescents are increasingly coming into focus as serious treatable conditions and as precursor of adult psychopathology (Rutter and Hersov, 1994). Diagnostic and statistical manual of mental disorders (DSM-IV) mentions conduct disorder (CD), as one of the most frequently diagnosed conditions in outpatient and inpatient mental health facilities for children. Conduct disorder (CD) refers to a

Persistent pattern of antisocial behavior in which the individual repeatedly breaks social rules and carries out aggressive acts that upset other people (APA, 2000). Part of behavioral problems constitutes exaggeration of or deviation from normal rather than mental illness or disease. Many behavioral problems are easier to treat in children since their behavior pattern and interaction styles have not yet become firmly established. In fact, researchers and clinicians take a more sensible approach and only consider that a child has significant emotional or behavioral difficulties if problems in these areas interfere substantially with the child's everyday life, or cause the child considerable distress, or result in marked disruption for others (Mohit and Eldin, 1998; Madeline and Melissa, 2009). These problems are generally identified by parents at home or by teacher at school. In addition some disturbed children especially adolescents come to attention via the police for their delinquent behavior (William *et al.*, 2011; Mohit and Eldin, 1998). Developing countries are subject to rapid socio-cultural and political

*Corresponding author: Salwa SH. Abdul-Wahid,
Faculty of Medicine, Diyala University, Iraq

changes which affect the life style of children and their families, and their physical and emotional wellbeing has highlighted the need for child psychiatry (Paula and Andrew, 2007). Schools, being a major influence on the growing and developing mind of the child, provide an ideal setting to carry out such a study. The relationship between school and pupils is considered as a primary factor of effective interaction in school environment and school results. School-based violence is a pernicious and wide-spread problem which affects the lives of a large number of children in school settings as both perpetrators and victims (Bram *et al.*, 2013). The objectives of this study were to find out the prevalence rate of behavioral disorders and emotional disorders among school children and the relationship of these disorders with personal variables as well as to socio-demographic factors of the child's family.

MATERIALS AND METHODS

A cross sectional study was conducted during the scholastic year 2010-2011 in Baquba City, the center of Diyala Province. The sample of the study consist of 1500 school children at the age of 10 to 12 years old of both sex male and female, who were randomly selected from nine primary schools. The schools themselves were randomly chosen, they were located in the four major administrative sectors at Baquba City (Table 1). The schools were either mixed sex or exclusively unisex schools. This study was restricted to school children from the forth to sixth of study year in the primary schools inside the city (urban). Data was collected using questionnaire which designed for collection of two types of information for each child enrolled in the study. First type of information completed by the child's' family include personal and socio-demographic data about the child and his family as regard age, sex, class, school, years of scholastic failure, parental education, occupation, death, family size, type as polygamy or presence of parents' divorce.

Second type of information was completed by the class teacher, as regard her or his response about child's behavior, according to the 59 items of Revised Rutter Child Scale for School Age Children (Revised RCQ). Rutter Child's Behavior Questionnaire (CBQ) for completion by teacher in its original version was developed by Rutter at 1967. It consisted of 26 items for conduct and emotional disorder mainly (Rutter, 1967). Revised version of Rutter Scales (RRS) are a revision of the original Rutter Parents' and Teachers' Scales (Rutter, 1967; Elander and Rutter, 1996). The original scales focused mainly on emotional and conduct problems. The revised scales incorporate prosocial items that including a small number of additional items to provide a better coverage of behaviors. RRS for completion by parents and teacher was developed in 1999. It consists of 59 items for prosocial trait (Elander and Rutter, 1996). Score for each item either 0, 1, or 2 (doesn't apply, applies somewhat and certainly applies). Behavior was consistently present during the previous six months in order to be included in the study (Madeline and Melissa, 2009). Scores were added together to get total difficulties (total symptoms) and to identify probable type of disorder. Main sub-scores for conduct disorder were derived from the following items: truancy, destructiveness, fighting, disobedience, lying, stealing and bullying. These items make up an antisocial, hostile, and aggressive or conduct disorder score. Sub-scores for emotional disorder were derived from the following items: worrying,

solitary, miserable, fearfulness, cries easily, tears on arrival to school and complain of stomach ache. These items make up an anxious, fearful, neurotic or emotional disorder score. The greater of the two scores gives the type of disorder. Mixed or undifferentiated disorders are considered when both have the same score. Statistical analysis was done using the Statistical Package for Social Sciences (SPSS, Inc., Chicago, Illinois) version 11.0.

RESULTS

Out of 1500 school children, 370 (24.6%) of them were identified as having behavioral disorders (males to female's ratio was 2:1). The prevalence rate of CD was 13.8% with the ratio of males to females was 3.2:1, While the prevalence rate of emotional disorder was 10.8% with males to females' ratio of 1.2:1) (Table 1).

Table 1. Prevalence of behavioral and emotional disorders among schoolchildren

Disorder	Male No %	Female No %	Total No%
Behavioral disorder	247 (16.4)	123 (8.2)	370 (24.6)
Conduct disorder	159 (10.6)	49 (3.2)	208 (13.8)
Emotional disorder	88 (5.9)	74 (4.9)	162 (10.8)
Total	494	246	740

The personal and demographic variables of the children and their parents were studied in relation to the type of behavioral disorders including conduct and emotional disorders. Some variables showed high significant association (HS), ($p < 0.05$) as the child's stage, gender, and father's working status. Also, a significant association was found in regard to the mother is alive or not, and with parents' divorce. Other variables did not show a significant association like the age of the child, the father is alive or not, mother's working status and with polygamy family (Tables 2 and 3). The vast majority of the study sample are with low category and accounted for 162(56.1%) and 127(43.9 %) for the conduct and emotional disorders respectively, and the leftover were at moderate and high scoring and they are accounted 36(17.3%) and 30(18.5%) for moderate level and 10(4.8%) and 5(3.1%) for high level at the conduct and emotional status respectively. In addition to that the distribution of the observed frequencies had reported the same proportion along the three levels of social and economic assessment and showed a non-significant difference at $P > 0.05$ between the two of the studied disorder, Table (4).

DISCUSSION

The prevalence rate of behavioral disorders in any community is determined by many factors including the geographic area, school factors, family factors and individual factors. These were investigated in many parts of the both developed and developing countries (Rutter and Hersov, 1994). An epidemiological study was conducted by Salwa in Baquba City during the scholastic year 1998-1999, to assess the prevalence rate of behavioral problems in school children, using Rutter Children Scale. The overall prevalence of conduct disorder for boys and girls was 9.1% and 1.6% respectively, while the prevalence rate of emotional disorders was 8.0% and 10.6% for boys and girls respectively. The prevalence of conduct disorder in the current study was higher than what was the old study reported, while the prevalence rate of emotional disorder in both studies approximately the same

Table 2. Distribution of the studied school children' related variables, based on the type of disorder with comparison statistical significance

Child Related Variables	Groups	Number and % of Disorder	Type of Disorder		C.S. (°) P-value	
			Conduct	Emotional		
Stage	Fourth	No.	46	64	C.C**.=0.244 P=0.000 HS	
		Stage	41.8%	58.2%		
		Disorder	22.1%	39.5%		
	Fifth	No.	95	37		
		Stage	72.0%	28.0%		
	Sixth	Disorder	No.	67	61	
Stage			52.3%	47.7%		
Disorder			32.2%	37.7%		
Age	9 -13	No.	151	113	C.C.=0.031 P=0.548 NS***	
		Age	57.2%	42.8%		
		Disorder	72.6%	69.8%		
	14 -16	Disorder	No.	57	49	
			Age	53.8%	46.2%	
			Disorder	27.4%	30.2%	
Gender	Male	No.	159	88	C.C.=0.227 P=0.000 HS****	
		Gender	64.4%	35.6%		
		Disorder	76.4%	54.3%		
	Female	Disorder	No.	49	74	
			Gender	39.8%	60.2%	
			Disorder	23.6%	45.7%	

*C.S. (comparison significance); **C.C. (Correlation coefficient); ***NS (non-significant); ****HS (High significant)

Table 3. Distribution of the studied parent's related variables based on the type of disorder with comparison statistical significance

Parent's Related Var.'s	Groups	Number and % of Disorder	Type of Disorder		C.S. P-value	
			Conduct	Emotional		
Child's father a live	Yes	No.	180	145	C.C.=0.045 P=0.386 *NS	
		Father a live?	55.4%	44.6%		
		Disorder	86.5%	89.5%		
	No	Disorder	No.	28	17	
			Father a live?	62.2%	37.8%	
			Disorder	13.5%	10.5%	
Child's mother a live	Yes	No.	193	158	C.C.=0.106 P=0.040 *S	
		Mother a live?	55.0%	45.0%		
		Disorder	92.8%	97.5%		
	No	Disorder	No.	15	4	
			Mother a live?	78.9%	21.1%	
			Disorder	7.2%	2.5%	
child's father working	Yes	No.	192	105	C.C.=0.324 P=0.000 HS (High Sig.)	
		Father working?	64.6%	35.4%		
		Disorder	92.3%	64.8%		
	No	Disorder	No.	16	57	
			Father working?	21.9%	78.1%	
			Disorder	7.7%	35.2%	
Child's mother working	Working	No.	28	16	C.C.=0.055 P=0.291 NS	
		Mother working?	63.6%	36.4%		
		Type of Disorder	13.5%	9.9%		
	Household	Disorder	No.	180	146	
			Mother working?	55.2%	44.8%	
			Disorder	86.5%	90.1%	
Polygamy family	Yes	No.	12	13	C.C.=0.045 P=0.391 *NS	
		Father having 2 wives	48.0%	52.0%		
		Disorder	5.8%	8.0%		
	No	Disorder	No.	196	149	
			Father having 2wives	56.8%	43.2%	
			Type of Disorder	94.2%	92.0%	
The parents divorced	Yes	No.	0	3	C.C.=0.102 P=0.049 S	
		Divorced	0.0%	100%		
		Disorder	0.0%	1.9%		
	No	Disorder	No.	208	159	
			Divorced	56.7%	43.3%	
			Disorder	100%	98.1%	

*C.S. (comparison significance); ** C.C. (Correlation coefficient); *** NS (non-significant); ****HS (High significant), *S (Significant at P<0.05)

Table 4. Descriptive statistics of socioeconomic status in relation to the studied types of disorder with comparison significant

Socioeconomic/ Groups	Types of Disorder NO and %		CS*, P-value
	Conduct	Emotional	
Low: Less than 72	162(56.1%)	127 (43.9%)	CC** = 0.045 P=0.069
Middle: 73-100	36 (54.5%)	30 (45.5%)	NS***

*C.S. (comparison significance); ** C.C. (Correlation coefficient);
*** NS (non-significant)

(Salwa, 2000). The child's problems are often multi-factorial and the way in which they are expressed may be influenced by a range of factors including developmental stage, temperament, coping, and the nature and the duration of stress. Family factors including maternal depression, poor marital relationship, poor housing were also involved. In general, chronic stressors are more difficult to deal with than isolated stressful events (Ek *et al.*, 2004). Everything that happens in the school affects the mental health of the child. Children who have emotional problems may need child guidance clinic or psychiatric services (Park, 2007). Regarding behavioral disorders, at one end lies the study of Esser *et al.* (2009) reported a prevalence of 0.9%, while at the other hand the study by Kashani *et al.* (1987) reported a prevalence of 8.7%. Diagnostic and statistical manual of mental disorders IV reported a prevalence rate in males of 6%–10% and in females of 2%–9%. The ratio of males to females with CD is lower for the adolescent-onset type than for the childhood-onset type (APA, 2000). Girls who had been physically abused at home had a 4.2-fold risk of having conduct disorder with violent behavior compared to those not exposed to domestic violence. A four countries study done in primary health care setting in the Sudan, Columbia, India and the Philippines, gave a prevalence rate which varied from 12% to 29% for child psychiatric disorders (Anula, 1991).

A broken primary family also increased the risk for having both violent CD and non-violent CD among girls (Anula, 1991; Rutter and Richman, 1997). In the current study, the prevalence rate of behavioral disturbances among females was 8.2% which is within the limits of DSM-IV (Table2). Among Indian studies, Deivasigamani (1990) has reported the prevalence of CD to be 11.13%. Conduct disorder was found in 4.58%; the ratio of boys to girls being 4.5:1. Childhood onset was found in 73% and adolescent onset in 27%. Mild conduct disorder was found in 36%, moderate in 64% and severe conduct disorder in none (Sujit *et al.*, 2006). Life space crisis intervention (LSCI) is a therapeutic and verbal strategy used to intervene when children are in crisis LSCI was implemented and studied in several Flemish Institutes. Positive effects were found on school results, attendance in the classroom and number of conflicts (Bram *et al.*, 2013). In the present study, the highest rate of behavioral symptoms was 24.6 % found amongst the study sample. There was an increased level of violence, terror and family stress under the influence of deteriorated security situation in Diyala and all its cities during last ten years. This has consequences on socio-demographic, residential instability, and displacement throughout Diyala districts or external immigration to other governorates to escape assassinations and kidnappings of children or their parents. All these factors may be implicated as a cause for high rate of behavioral disturbances when our figure is compared with national studies conducted before or

studies in other countries. Male children in this sample have a higher rate of behavioral disorders than females, particularly in regard to conduct disturbances. This is in harmony with the finding of other studies (Ek *et al.*, 2004; Park, 2007; Anula, 1991; Rutter and Richman, 1997). Family factors, perceptions, attitude and child rearing practices may explain sex differences in the rate of prevalence; however the role of hormones and chromosomes should be taken in to account. Past research suggests that children who experience multiple transitions in family structure may face worse developmental outcomes than children raised in stable two-parent families and perhaps even children raised in stable, single-parent families (Paula and Andrew, 2007). The effect of Sectarian fighting, forced displacement and murder for identity laid more pressure on the boys who had to go for work at a very young age plus that the alive parents, in these circumstances had paid less attention to their children and this is more remarkable in the boys than the girls (Anula, 1991). In the present study, the sample included a range of age, this range of age was not an intended inclusion criterion, but was determined by the grades of school classes which are 4th, 5th, and 6th grades when high significance was found with the class. Schoolchildren aged at 9-13 years that presented highest rate of conduct and emotional disorders were 72.6% and 69.8% respectively.

This age may be a pre- adolescence age where all psychiatric disorders and particularly conduct and delinquent behavior tend to increase (William *et al.*, 2011). Children do not always display their reactions to events immediately, although they may emerge later. Anticipatory guidance can be helpful to parents and children in those parents can attempt to prepare children in advance of any potentially traumatic events. Children should be allowed to express their true fears and anxieties about impending events (Rutter and Richman, 1997). In addition to the above mentioned, the range of disorders may be also caused by a number of factors such as parenting style which is inconsistent or contradictory, family or marital problems, child abuse or neglect, overindulgence, injury or chronic illness, separation or bereavement (Achenbach *et al.*, 1987). The study results of Essi *et al.* (2006) suggested that children being physically abused by parents may influence the development of conduct disorder including violent behavior among girls. This emphasizes the importance of early recognition of domestic violence. The researchers stated that the identifying risk factors in children could be an important step in preventing the progression of CD to anti-social personality disorder. Another study was report on a group of adolescents with conduct disorder in a community sample, utilizing structured interviews for the adolescents and their parents. Various instruments were used.

They found that conduct disorder was the most common psychiatric problem (along with anxiety disorders), the findings, including approaches to conflict resolution in adolescents and their parents (Kaisa *et al.*, 2011). The course of emotional disorders proved very promising, while that of conduct disorders was extremely unfavorable. Remission of psychiatric disorders was also influenced by an improved psychosocial environment within the family (Rutter and Richman, 1997). Behavioral problems are first brought to the attention of parents by teachers or school officials. Children who are easily distracted, unwilling or unable to cooperate

with school rules, or are disruptive to classroom activities can make it difficult not only for teachers, but also for other students. Parents of children with behavioral problems can work with teachers, child psychologists, and their child to help formulate a plan to help children get the most benefit from the educational process. Cooperation between school and parents is not a recent phenomenon as it seems at first impression, in practice such cooperation is particularly emphasized by parents of children with emotional, behavioral and social problems or disorders (Thomas and Kevin, 2010). In conclusion, the present study showed there was a significant behavioral disorder among school children. Also there was evidence of complex interaction between individual and family factors.

REFERENCES

- Achenbach TM, McConaughy SH, Howell CT, 1987. Child/adolescent behavioral and emotional problems: implications of cross-informant correlations for situational specificity *Psychol Bull.* Mar; 101(2):213-32.
- American Psychiatric Association (APA). *Diagnostic and statistical manual of mental disorders.* 4th ed. Washington, DC: APA; 2000.
- Anula D. Nikapota, 1991. Child psychiatry in Developing Countries. Vol.158. Pp. 743-751.
- Bram Soenen; Ilse Goethals; Eline Spriet; Franky D'Oosterlinck; Eric Broekaert, 2013. Reflections of Caretakers on the Process of Implementation of Life Space Crisis Intervention at a Therapeutic centre for Youngsters with Emotional and Behavioural Disorders. *Psychiatric Quarterly.* 2012, June, Volume 84 (2). Pp 239-254.
- Deivasigamani TR. 990. Psychiatric morbidity in primary school children: An epidemiological study. *Indian J Psychiatry.* 1. Vol.32. Pp. 235-40.
- Ek, UK Holmberg L de Geer, C Swärd, E Fernell, 2004. Behavioural and learning problems in schoolchildren related to cognitive test data. *Acta Paediatrica.* July. Volume 93 (7). Pp. 976-981.
- Elander J.; Rutter M. 1996. Use and development of Rutter parent's and teacher scales. *International Journal of methods in psychiatric research.* Vol.6. Pp. 63-78.
- Esser G, Schmidt MH, Woerner W. 1990. Epidemiology and course of psychiatric disorders in school-age children - results of a longitudinal study. *J Child Psychol Psychiatry.* Vol. 31. Pp.243-63.
- EssiIomäki; KaisaViilo; HelinäHakko; MauriMarttunen; TaruMäkikyrö; PirkkoRäsänen, 2006. Familial risks, conduct disorder and violence. *European Child & Adolescent Psychiatry.* February, Volume 15, (1). Pp. 46-51.
- KaisaRiala; EssiIomäki, HelinäHakko; PirkkoRäsänen, 2011. Is the severity of adolescent conduct disorder associated with the level of nicotine dependence? *European Child & Adolescent Psychiatry.* August, Volume 20, (8). Pp. 393-9.
- Kashani JH, Daniel AE, Sulzberger LA, *et al.* 1987. Conduct disordered adolescents from a community sample. *Can J Psychiatry.* Vol. 32. Pp.756-60.
- Madeline Y. Lee; Melissa Jonson-Reid, 2009. Needs and outcomes for low income youth in special education: Variations by emotional disturbance diagnosis and child welfare contact. *Review.* Volume July, Pp.722-731.
- Mohit.A.; Eldin S.A 1998. Management of psychosocial problems. *Mental health promotion for school children.* P. 36-63.
- Park. K. 2007. Park's textbook of preventive and social medicine. *Mental health.* 19th edition. Pp.684-90.
- Paula Fomby; Andrew J. Cherlin. Family instability and child wellbeing, 2007. *Am Sociol Rev.* April; 72(2): 181-204.
- Robert M. Kliegman; Bonita F. Stanton; Joseph W. St. Geme; Nina Schor; Richard E. Behrman. 2004. *Nelson Textbook of Pediatrics.* Development and Behavioral Pediatrics. 19th edition. 2011 Elsevier Saunders. Pp. 67-112.
- Rutter M. 1967. A children behaviour questionnaire for completion by teachers; Preliminary finding. *Journal of child psychology and psychiatry.* Vol.8. Pp.1-11.
- Rutter M.; Hersov. L. 1994. *Child and Adolescent Psychiatry (Modern Approaches).* 3rd ed. P. 300-55.
- Rutter. M. Hogg. C.; Richman. N. 1997. *Manual of Child Psychology Profolio.* Pp.1-7.
- SujitSarkhel, Vinod Kumar Sinha, and PushpalDeSarkar. Prevalence of conduct disorder in schoolchildren of Kanke. *Indian J Psychiatry.* 2006. Vol.48 (3): 154-169.
- Salwa Sh. Abdul Wahid, 2000. Behavioral disorders among primary school children at Baquba City. A thesis approved by committee of higher graduate studies of the University of Baghdad as part of Master in science in community Medicine.
- Thomas P. Gumpel; Kevin S. Sutherland. The relation between emotional and behavioral disorders and school-based violence. *Aggression and Violent Behavior.* Volume 15 (5), 2010, Pp. 349-356.
- William W. Hay; Myron J. Levin; Judith M. Sondheimer; Robin R. Deterding. 2011. *Current diagnosis & treatment - Pediatrics.* Behavioral & developmental variation. 19th edition. Pp. 103.
