

Psychiatric Problems of School-Age Children and Adolescents in a Child Psychiatry Clinic in Suez

M. H. El-Defrawi and R. Mahfouz

This study describes psychiatric problems of 207 referrals to a child psychiatry clinic established within the school health unit in Suez city. Bed wetting (37%) and functional enuresis (36%) were the commonest presenting problem and diagnosis, followed by poor learning (31%) and disruptive behavior disorders (25%) on axis I and specific developmental disorders (25%) on axis II. Results showed that 60 % of the referrals have multiple diagnoses and that disorders loaded with developmental, genetic and familial backgrounds predominate. The explanation of our results are discussed with the implication for future mental health planning for school- age children and adolescents.

(Egypt.J. Psychiat.,1992,15:242-249).

Introduction

Many of the troubles youngsters and adolescents experience in their lives at school or home require early and special effort at diagnosis and intervention. Recent data indicate that 10 to 20 percent of all students in schools need some sort of mental health support and/or intervention (Costello, 1989) and that many require help with their learning problems (Silver, 1989). El- Sherbirni et al. (1981) in their survey of three primary schools in Egypt identified psychiatric problems in 10% of the children studied. However, their findings did not include mental retardation and psychiatric disorders of epilepsy. Moreover, in their sample, about 50% of the children showed below average (16.7%) and poor (33.3%) school performance. Okasha et al.(1988) reported that emotional and behavioral disorders were significantly more prevalent among underachievers than good achiever school-age children (52% com-

pared with 18% respectively). Furthermore, in this study, psychiatric disorders were present in siblings of the disturbed child in 50% of cases. Of course psychiatrists can never be able to deal with the entire spectrum of the mental health problems of school-age children and adolescents alone and they have to educate, collaborate and recruit other institutions and systems which are involved in the provision of services and care of those children and adolescents.

There are three main reasons for the concern of mental health professionals about psychiatric intervention within the school-age stage of development. First is that recent evidence from developmental and experimental data suggests that efforts for primary prevention and early intervention need to begin early in life (Horacek et al, 1987). In a report of a study of seven primary care centers, 5 to 15 percent of untreated children were recognized as having behavioral, educational, or social problems (Starfield et al, 1980). Follow-up data of children diagnosed as having attention deficit hyperactivity disorders showed that they

M. Hassib El- Defrawi, M.D. Lecturer in
in Psychiatry, Suez Canal University

Refaat Mahfouz, M.D., Professor of Psy-
chiatry, El-Menya University.

suffer drug problems, sociopathy and were not successful in their social and occupational functioning, (Borland and Hackman, 1976). Second, most school-age children are sent to psychiatric clinics because of behavioral problems in school or problems that interfere with or affect their academic performance (Starfield et al, 1980). Third, in primary prevention-and for early intervention-when applied can only occur on a mass basis in a system already targeted to professional involvement with school-age children and adolescents (Silver and Brunstetter, 1987). The school health system is the best example

In order to meet the increasing demands of mental health of school-age children to psychiatric services, we have started to establish a child psychiatric clinic within the school health unit of Suez city. There were three main goals, the first is to identify and recognize the nature of psychiatric problems that will be referred from schools to this clinic, this could be very helpful in future planning to provide services. The second was to train medical students and to incorporate mental health problems of children and adolescents in their neuropsychiatric curriculum. The third was to validate some research tools and checklists of rating behavioral problems of children and adolescents (El-Defrawi, et al. 1992). This report presents the methods and demographic results of psychiatric presentations and evaluations in a child psychiatric clinic (the first goal) during the school year 1989-1990.

Subjects and Method

a) Demography

Suez is one of the three governorate served by the faculty of medicine, Suez Canal university. The socioeconomic level is that of a middle and lower classes where the industry of oil companies, the port-shipping and trade business are the

two major backbones of its economy, in addition to agriculture. The city has suffered the burden of war (1967-1973) and relocation of its population for many years. In Suez city, the population of the school-age children and adolescents is about 40,000, i.e. about 10% of the Suez governorate population (400,000) enlisted students in the educational system.

b) Data Collection

When we began our service we asked all schools within Suez city to refer children and adolescents with developmental, emotional and behavioral problems to the clinic. It is possible that initially all referrals were of multiple handicapped children who had evidence of severe psychopathology. However, preliminary comparisons of presenting problems and diagnoses during the first half and the second half of the school year showed that this was not the case. Children with equal psychopathology were referred all year round. Data for this study were obtained during the diagnostic interview with the child and one of his parents, from psychometric assessment, from school reports and from follow-up visits to the clinic. All children and adolescents referred to the clinic during the period from September 1989 to end of April 1990 were included in the study. The total number of children and adolescents referred was 207, which represent 3.7% of the entire referrals to the school health unit in Suez district in Suez city in this period. The clinic is scheduled three mornings every week and the evaluation team consists of a psychiatrist and a psychologist with special training in psychometric evaluation of children and adolescents. The assessment begins with a history-taking interview with the child and the accompanied informant. After the initial interview and a provisional diagnosis is settled, the child is either sched-

uled for psychometry if indicated or for disposition. Diagnoses were made according to DSM-III-R (American Psychiatric Association, 1987). The psychologist gave the appropriate testing, usually the Stanford-Binet Intelligence Scale for children or Intelligence Test for Children and other mental abilities tests. Ideally, for each referred child with school or academic problems, a psychometric assessment including I.Q. and psychoeducational evaluation should be performed. However, we did not do I.Q. assessment except for those with poor school performance and slow learners because of the possibility for referral to special schools. Behavior checklists and scales were filled out by parents and teachers. (El-Defrawi et al, in preparation).

Results

a) Presenting Problems (Table 1)

The referrals consisted of 207 children and adolescents (101 boys, 106 girls). Since it is not the diagnostic category but the academic and social adaptation and functioning of the child to his school and family that precipitates referral, we recorded the concern of the parent who brought the child to the clinic and what areas of behavioral problems caused the greatest trouble. In the analysis of the major symptoms, the triad of problems that emerged was, bed wetting, poor learning and somatic complaints. Table I shows summary of presenting problems, cause of referral or complaints as taken

from the parents. Bed wetting and soiling ranked first in the list (37%), followed by poor learning and academic backwardness (31%), then somatic complaints and seizures (27%), and fourthly difficulty to manage, control or oppositional (22%). Problems such as overactive, hyperactive, restless (16%), anxious, nervous, irritable (17%), and unhappy, depressed mood (18%) appeared to be more or less equal. Waldron (1976) has pointed out that the diagnoses of neurosis in childhood and adolescents were later found to be bipolar disorders in adulthood.

Table 1
Frequency of Presenting Problems Obtained During Diagnostic Interview with Child & Parent

Problems (Behavioral, Emotional, Boys Developmental)	Boys (101)	Girls (106)	Total (207)	%
Overactive / hyperactive / restless	18	15	33	16 %
Aggressive / destructive / hostile	14	13	27	13 %
Difficult to manage / control	21	24	45	22 %
Withdrawn / shy / poor relationship	11	6	17	8 %
Poor impulse control / lies / steals	11	15	26	13 %
Poor learning / school backwardness	31	33	64	31 %
Anxious / nervous / irritable	12	23	35	17 %
Somatic complains / seizures	26	29	55	27 %
Bed wetting and soiling	42	35	77	37 %
School behavioral problems/refusal	13	22	35	18 %
Delayed language / Speech problems	13	2	15	7 %
Sad / unhappy / depressed mood	12	25	37	18 %
Parent- child problems	8	8	16	8 %

Table 2
*Summary of Diagnoses * (N=207)*

Diagnostic Category	N	%
Axis I & Axis II		
Functional Enuresis	75	36
Disruptive Behavior Disorders	52	25
Specific Developmental Disorders	51	25
Mental Retardation	39	19
Adjustment Disorders	15	7
Anxiety Disorders	12	6
Speech Disorders, Stuttering	11	5
Schizophrenia	6	3
Major Depression	3	1
Functional Encopresis	2	1
Anxiety Disorders of Child & Adolesc.	2	1
Axis III		
Epilepsy	27	13
Cerebral Palsy	5	7
Others (skin, hydrocephalus)	3	1

* Diagnoses not mutually exclusive

Table 3
Distribution of Diagnoses

Frequency of Diagnoses	N	%
Single Diagnosis	82	40
Multiple Diagnoses	125	60
Axis I Diagnoses	107	52
Axis II Diagnoses	90	43
Axis III Diagnoses	35	17

* Diagnoses are not mutually exclusive

b) Diagnoses (Table 2)

The different diagnostic categories are summarized in table

II. Functional Enuresis (36%) was the most frequently diagnosed disorder (40 boys, 35 girls) with a slightly larger number of boys (mean age 9 years, 8 month) than girls (mean age 9 years). Disruptive Behavioral Disorder (25%) and Specific Developmental Disorders (25%) ranked the second most frequently occurring diagnoses. These initial findings deserve some comments in the light of recent studies that suggest diagnostic continuity of psychiatric disorders of childhood (Beitchman et al, 1987). In a recent study of three cohorts of children who were referred because of learning problems, hyperactivity, or emotional problems, Silver (1981) found many of the children's symptoms tended to overlap. The hyperactive children showed a high rate of learning disability, and the children with learning disabilities showed a significant rate of emotional disturbance.

However, actually behavioral problems occupy the second top on axis I and Specific Developmental Disorders the first on axis II. A 30-year follow up of delinquent boys with conduct disorder revealed high prevalence of sociopathic behaviors (McCord, 1978). Robins. (1978) found that all types of antisocial behavior in childhood predict a high level of antisocial behavior in adulthood and each kind of adult antisocial behavior is predicted by the number of childhood antisocial behavior, indicating that adult and childhood antisocial behavior both form syndromes and that these syndromes are closely interconnected. Table 3 shows the distribution of diagnoses across the

Table 4
Distribution and Differentiation of Some Diagnoses

Diagnosis	Number (%)
Mental Retardation	
Axis II, only in	17 (8%)
with Specific Develop. Disorder	6 (3%)
with ADHD	8 (4%)
with ADD, simple	4 (2%)
with Functional Enuresis	2 (1%)
with Speech Disorder	2 (1%)
Mild	6 (3%)
Moderate	28 (14%)
Severe	4 (2%)
Unspecified	1 (0.5%)
Disruptive Behavior Disorders	
ADHD	26 (13%)
Undifferentiated Attention D. D.	14.3 (7%)
Conduct Disorder	10 (5%)
Oppositional and Defiant D.	1 (0.5%)
Adjustment Disorder	
with anxious mood	6 (3%)
with depressed mood	3 (1.5%)
with mixed emotional features	4 (2%)
with physical complaints	2 (1%)
Schizophrenia	
Disorganized	3 (1.5%)
Paranoid	1 (0.5%)
Residual	2 (1%)

axes. Only 82 (40%) of the referral have single diagnosis, while 125 (60%) have multiple diagnoses. Axis II and III, i.e., specific developmental and physical disorders are found in 42% of the psychiatric referrals. Table 4 shows the differentiation of diagnoses and the number of children and adolescents in each category.

Discussion And Comments

The school-age years of life are universally accepted to be of profound importance to the emotional, cognitive, and social development, yet less psychiatric intervention occurs in this period from the school health system in Egypt. The fact that these children had been referred to a child psychiatric clinic in a school health unit may indicate a biased sample of school-age children. However, it might be argued that all children referred to a psychiatric clinic will have evidence of behavioral or emotional disorders. Evaluating and treating children and adolescents was not only helpful to provide us with direction and guidelines about the distribution of psychiatric problems and priorities for efforts to be directed during planning of psychiatric services, but also it has helped us to gain some insight in the nature of psychiatric problems and some underlying possibilities. For example, the fact that 60% of referrals have multiple diagnoses, i.e., multi-handicapped with neuropsychiatric and developmental problems, points out to the necessity of improving the physical condition and development in the preschool years. Children with chronic physical disorders makeup about 6% to 10% of the school age population (Pless and Roghmann, 1971). It is estimated that up to 30% of these children may be further handicapped by secondary social and psychological problems such as low self-esteem, behavioral problems and school underachievement. They are vulnerable not only because of the medical aspects of the chronic disorder but because of secondary effects of the illness. Developmental, genetic and familial backgrounds might underlie and be responsible for this high incidence of mul-

multiple problems. This is particularly so if we realized that mental retardation (19%), enuresis (36%) were one of the commonest problems that brought children from same families for treatment. Mental retardation and psychiatric disorders of childhood and adolescents are one of the most difficult categories of childhood disabilities to document and discuss. It is likely that 3 percent of newborn infants will be diagnosed as retarded at some time during their lives (Richmond et al, 1983). These children probably include cases of so-called "Functional Retardation", particularly among the poor, "minimal cerebral dysfunction", learning disorders, and emotional disorders. The true prevalence of mental retardation probably is less than one percent (Richmond, 1964). It is suggested that future psychiatric services for school-age children should include a subsidiary clinic for mental retardation and learning disabilities.

In other words, more than half of the referrals presented with developmental and biological problems. In our sample we have three families in the mental retardation category. A father has brought us his 3 children (age 9, 10 and 11 years) asking for referral to special school for retarded. The three siblings were mildly to moderately retarded. In another two families, parents brought their children, in one family a 16-year-old mentally retarded with generalized seizure and his sister a 9-year-old with mental retardation, both were attending special school for mentally handicapped. The other family, a 6 and 7 year-old boys were brought by the mother one by one because of behavioral problems. Moreover, in the category of nocturnal enuresis, there were five families who brought their children one by one, then they started to bring siblings and cousins of their children. Perhaps in future planning for psychiatric services, a specialized enuresis clinic

should be established for two reasons. The first is that enuresis is one of the commonest and associated disorders in vulnerable children, the second is that it represents a disorder with a combined learning behavior and developmental etiological factors that need integrated behavioral as well as psychopharmacological management. In developed countries, approximately 25 percent of physician referrals for children are related to psychosocial problems (Richmond et al 1983). The recent prominence of these problems has caused some to term them "the new morbidity"

We conclude that further studies are needed to evaluate the relation of psychosocial and educational factors including school adjustment and achievement of children with psychiatric problems. Such information will increase our understanding of these children's needs to prevent their sufferings and facilitate comprehensive approaches to improve their overall functioning.

References

- American Psychiatric Association (1987) *Diagnostic and Statistical Manual of Mental Disorders*, Third Edition, Revised. Washington, DC: APA.
- Beitchman, J.H., Wekerle, C., and Hood, J. (1987) Diagnostic continuity from pre-school to middle childhood. *J. Amer. Acad. Child. Adol. Psychiat.*, 26: 694-699.
- Borland, B.L. and Heckman, H.K. (1976) Hyperactive boys and their brothers: a 25-year follow-up study. *Arch. Gen. Psychiat.*, 33: 669-675.
- Costell, E.J (1989) Developments in child psychiatric epidemiology. *J. Amer. Acad. Child. Adol. Psychiat.*, 28: 836-841.
- El-Defrawi, M. H. (1992) Child Psychiatric disorders and their clinical correlates: Problems Reported. *Egypt. J. Psychiat.* (in press).

- Mahfouz, R. and Ragab, L. (1990) A reliability and validity study of a rating scale for attention deficit hyperactivity disorder in *Egyptian children and adolescents*. (Submitted for publication)
- El-Sherbini, O., Abdel-Rahman, S. and Abdel-Mohsen, Y. (1981) Psychiatric disorders in primary school children. *Egypt. J. Psychiat.*, 4: 78-90.
- Fowler, M.G., Johnson, M.P. and Atkinson, S.S. (1985) School achievement and absence in children with chronic health conditions. *J. Pediat.*, 106: 683-687.
- Holdsworth, L. and Witmore, K. (1974) A study of children with epilepsy attending ordinary schools. *Dev. Med. Child Neurol.*, 16:749-756.
- Horacek, H.J., Ramey, C.T., Compbell, F.A. Hoffmann, K.P. et al (1987) Predicting School failure and assessing early intervention with high-risk Children. *J. Amer. Acad. Child. Adol. Psychiat.*, 26:758-763.
- Mc Cord, J. (1978) A 30-year follow-up of treatment effects. *Amer. Psychol.*, 33:284-289.
- Okasha, A Khalil, A.H., El-Etribi, M.A., El-Fiky, N.R. and Ghanem, M.H. (1988) Academic underachievement among Egyptian children. *Egypt. J. Psychiat.* 11: 127-142
- Pless, I.B. and Roghmann, K.J. (1971) Chronic illness and its consequences: Observations based on three epidemiologic studies. *J. Pediat.*, 79:351-359.
- Richmond, J.B., Tarjan, G. and Mendelsohn, R.S. (1964) *Mental Retardation: A Handbook for the Primary Physician*. Chicago: American Medical Association.
- Butler, J.A. and Stenmark, S. (1983) Reducing childhood disability in the 80s. *Hosp. Comm. Psychiat.*, 34:507-514
- Robins, L.N. (1978) Sturdy childhood predictors of adult antisocial behaviors: Replications from longitudinal studies. *Psychol. Med*, 8:611-622.
- Silver, L. B. (1981) The relationship between learning disabilities, hyperactivity, distractability, and behavioral problems: Clinical analysis. *J. Amer. Acad. Child. Adol. Psychiat.*, 20:385-395
- and Brunster, R.W. (1987) Learning disabilities: Recent advances. In: *Basic Handbook of Child Psychiatry*, Vol. V, Noshitz, J. (ed). New York: Basic Books.
- (1989) Learning disability. *J. Amer. Acad. Child. Adol. Psychiat.*, 28:309-313.
- Starfield, B., Gross, E. and Wood, M. (1980) Psychosocial and psychosomatic diagnosis in primary care of children. *Pediatrics*, 60: 159-167.
- Waldron, S.Jr. (1976) The significance of childhood neurosis for adult mental health: A follow up study. *Amer. J. Psychiat.*, 133: 532-538.

Les Problèmes Psychiatriques des Enfants à L'age de L'école et des Adolescents dans une Clinique Psychiatrique D'enfants á suez

Ce rapport décrit les problèmes psychiatriques des 207 référés à une clinique psychiatrique établit parmi une unité de santé scolaire dans la cité de Suez.

Mouiller le lit (37%) et l'enuresis fonctionnel ont été le problème et le diagnostique le plus courant et le plus présentant, suivi par la pauvre habilité d'apprendre (31%), les désordres de conduite (25%) sur l'axe II. Les résultats montrent que 60% des référés ont eu des diagnostics multiples et que les désordres chargés des fonds développementales, génétiques et familiales, ont été prédominants. L'explication de notre résultats ont été discuté avec l'implication de tracer le plan de la future santé mentale des enfants à l'age de l'école et des adolescents.

المشاكل النفسية للأطفال والمراهقين في سن المدرسة

في عيادة طب نفسية في السويس

تتناول هذه الدراسة المشاكل لمايتين وسبعة تلميذ محولين لعيادة طب نفسية داخل إطار الصحة النفسية المدرسية في مدينة السويس.

وقد جاءت مشكلة بوال الفراش (37%) على رأس القائمة، تليها صعوبات التعلم (31%) وإضطرابات السلوك (25%) على المحور التشخيصي الأول وإضطرابات النماء النوعية على المحور الثاني، وقد أوضحت النتائج أن حوالي 60% من المحولين لديهم تشخيصات وإضطرابات متعددة مما قد يشير إلى زيادة العوامل الوراثية والبيئة لهؤلاء التلاميذ، وقد تناولت المناقشة دور هذه المؤشرات في التخطيط لمستقبل الصحة النفسية للأطفال والمراهقين في مصر.