الطرق الحديثة في علاج اكتئاب الاطفال

رسالة مقدمة توطئة للحصول علي درجة الماجستير في الامراض النفسية و العصبية من ط. ريهام احمد عبد المحسن بكالوريوس الطب و الجراحة

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كلية الطب جامعة عين شمس 2006

Recent advances in the management of depression in children

An overview for partial fulfillment of master degree in Neuropsychiatry Faculty of medicine Ain shams university

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2006.

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Introduction:

Depression is a significant psychiatric disorder in children which can result in serious consequences such as school absenteeism and decreased educational attainment. Recent studies have shown that children present with a different spectrum of symptoms than adults with depression. Furthermore, depression in the young is more frequently co-morbid with other psychiatric disorders than in adults complicating diagnosis. Once the condition is diagnosed, it is clear that treatment is necessary. Although early clinical data suggest that selective serotonin reuptake inhibitors (SSRIs) or psychotherapy may provide effective treatment, further clinical trials are required in young patients (Carlson, 2000).

A great deal of work on identification of the risk factors of depression in children has focused on childhood precursors of adult depression (e.g. related to attachment, loss of a parent) and on characteristics of the offspring of depressed parents .depression is a pervasive disorder as it encompasses a range of child domains of functioning (peer, parent, family relations and school functioning (Hammen, 1996).

Usually 40% to 50% of depressed children meet criteria for at least one other diagnosis. The co morbid diagnoses with which depression is associated vary: Anxiety disorders are relatively common because the symptoms overlap, conduct disorder, oppositional defiant disorder, attention deficit/hyperactivity disorder, and substance abuse are also diagnoses likely to be associated with depression; which are likely to be evident and have their own effects on current impairment and long term course (Cytryn, 2003).

Although children are likely to recover from an episode of depression within a year or two, they are likely to have a continued impairment and dysfunctions as well as recurrences of the disorder; so the life long course of childhood depression and its transmission in families make treatment of special significance (Lewinsohn and Robert, 1994).

Rationale of the work:

The Morbidity associated with depression in children and young people continues into adulthood in about 30% of cases. This circumstance, with specialist services often required, can be expensive in terms of both emotional and economic cost. Indeed, this disorder often leads to long-term social maladjustment and a higher risk of suicide, with 37.5% continuing to experience social dysfunction into adulthood, coupled with a high risk of criminality, and 32.3% attempting suicide between childhood and adulthood (Fombonne *et al.*, 2001). Given the fact that in 2003 there were 3.6 million children aged 0–5 years, 4 million aged 6–11 years, and 7 million aged 12–18 years (UN Population Division, 2004), so these risks affect a large fraction of the national population.

In terms of pharmaceutical costs, there are currently more than 40,000 children and young people using antidepressants in the UK for all mental health disorders (Ramchandani, 2004). These include fluoxetine as well as other selective serotonin reuptake inhibitors (SSRIs) that were permissible prior to December 2003 (Duff, 2003).

Aim of the work:

- 1-Should this child depression be treated?
- 2-What are the projected outcomes in the absence of treatment?
- 3-What types of treatment are likely to be most effective?
- 4-What are the common co morbid diagnoses?
- 5-Are there associated suicide tendency?
- 6-How to assess child hood depression?
- 7-Is there frequent bipolar disorder among depressed children?
- 8-How to prevent child hood depression?

Chapter I

History and epidemiology of depression in children

History:

Prior to 1970, American psychiatrists displayed a general lack of interest in childhood depression. It was generally believed that although children may exhibit sad affect as a reaction to loss or frustration, they rarely demonstrated sustained symptoms of depression. In the 1960s, there was still an intensive discussion in the US as to whether childhood depression could be considered a valid clinical entity because of some psychodynamic problems i.e. the lack of an internalized superego prior to adolescence (Arietti, 1959).

Mahler (1961) emphatically stated that "systematized affective disorders are unknown in childhood. The immature personality structure of the infant or older child is not capable of producing a state of depression such as that seen in an adult."

(1957) wrote about the classification of childhood psychopathology, which categorizes behavior problems on the basis of the delinquency, symptoms, such as: anger, child's fear, hypochondriasis, hysteria, obsessions and compulsions, hospitalism and schizophrenia. "Psychoanalytic formulations are not used by Kanner in his classification scheme, which is in fact, a carefully complete list of symptoms complexes, nor does his outline refer to dynamic concepts of neuroses as a factor in classification." Cramer (1959) attributed the discovery of childhood neurosis to Breuer and Freud and its elaboration to Freud's disciples such as Anna Freud, Melanie Klein and Hartmann. He related children's neurotic disturbances at different ages to the psychoanalytic stages of development, such as phallic, anal, preoedipal, oedipal and latency periods. He finally caps his contribution by stating that child psychoanalysis is the only reliable treatment of childhood neurosis.

Until the late 1970s, the term 'childhood depression' was still absent from all major American textbooks of psychiatry or child psychiatry (Kanner, 1957; Arietti, 1959; Friedman and Kaplan, 1967 and Friedman and Kaplan, 1975). The only significant

writings on this subject were several studies reporting on depressive phenomena in infancy and early childhood that were usually associated with significant losses (Spitz and Wolf, 1946; Bakwin, 1949; Engel, 1962 and Bowby, 1969).

The boys with undescended testicles, especially those in whom the surgical repair was delayed beyond the age of 8 years, almost half were seriously disturbed and presented symptoms often associated with adult depression, such as sad mood, withdrawal, poor social and academic adjustment, and a pervasive feeling of helplessness (Cytryn et al., 1967). Another important finding was that a family constellation involving a dominant mother and a passive, withdrawn or absent father was particularly predisposing to the above mentioned emotional difficulties in the children. Since cryptorchism is not a life-threatening or disabling disorder and is not readily visible to the outside world, his explanation related to the symbolic significance of testicles, which represent power, manhood, and potency in most cultures and their absence may engender a low self-esteem and vulnerability to depression.

In several studies exploring the emotional- adjustment of children with four types of chronic illness: cystic fibrosis, congenital heart disease, sickle cell anemia, and congenital amputation,the findings were similar to those in the previous study of boys with undescended testicles. Close to half of these children showed signs of serious emotional disturbance characterized by depressive symptoms: sadness, withdrawal, impairment of functioning, social isolation, helplessness and hopelessness, and/or symptoms of anxiety, such as separation anxiety, phobic avoidance, tension, irritability, and sleep disturbances (Cytryn, 1971; Cytryn et al., 1973). By that many of the pediatric and surgical patients appeared to be markedly depressed, according to all the criteria of adult depression as used at the time—prior to Feighner Criteria (Feighner et al., 1972), and DSM-III (Cantwell, 1980). A question rose as to

whether the children did, in fact, suffer from the same disorder that affected depressed adults or at least, from a related condition. Furthermore, whether such a depressive condition might exist in children who do not have a concomitant physical illness or handicap and who have never been hospitalized?

A diagnostic instrument called the Children's Affective Rating Scale, or CARS, was put trying to answer all these questions, and was divided into four categories corresponding to four major aspects of the child's life: (1) adjustment at home with family; (2) school adjustment; (3) social adjustment; and (4) the child's emotions and fantasy life. The parent interviews corroborated the child's interviews and, in addition, covered information about the family structure, existing conflicts, family history of depression and other mental disorders, and the attitude of family members toward the patient. This flexible but somewhat loose diagnostic instrument was eventually converted into a more formal system called the Child Assessment Schedule (CAS), (Cytryn, Hodges et al., 1982).

Epidemiology

Depression is a significant psychiatric disorder in children and adolescents ranging from 2-10% at any time (Campo, 2004); approximately 2% of children suffer from a current episode of clinical depression. However, occurrence can be as high as 18% if past episodes are included (Harrington, 1993). Fleming and Offord's (1990) review of studies showed that major depressive disorders (MDD) in preadolescent children occurred in as low as 0.4 percent and as high as 2.5 percent of the samples. Upper estimates for adolescents were higher, with a range from 0.4 percent to 6.4 percent. The subsequent Oregon Adolescent Depression Project (Lewinsohn et al. 1993) found a point prevalence of 2.57 percent for MDD and 0.53 percent for dysthymic disorder (DD), and lifetime prevalence of 18.48 percent for MDD and 3.22 percent for DD in US high school students (mean AGE = 16.6 years).

In the United States, the prevalence of major depressive disorder is approximately 1 percent of preschoolers, 2 percent of school-aged children and 5 to 8 percent of adolescents. The prevalence of depression appears to be increasing in successive generations of children, with onset at earlier ages (Cicchetti and Toth, 1998).

Dysthymic disorder has a prevalence of 0.6 to 1.7 percent in prepubertal children and 1.6 to 8 percent in adolescents, it is considered a "gateway" disorder because of its relatively early age of onset and increased risk of subsequent affective disorders. Dysthymic disorder manifests in similar but milder symptoms compared with major depressive disorder. However its chronic nature can severely impair a child development of the social skills needed to combat these same symptoms. While the mean duration of episodes of major depressive disorder in clinically referred samples is 7 to 9 months, the duration of dysthymic disorder is 3 years. While 90 % of children with major depressive disorder reach remission by 18 months to 2 years after onset, about one half of children diagnosed with DD are still struggling with their symptoms at this point (Eley, 1997).

The average (mean) duration of the index episode of MDD in their sample was 32 weeks—and half had recovered by nine months (median duration). For DD, however, the median duration of the episode was four years. Both MDD and DD children demonstrated a high likelihood of having a second depressive episode within a nine-year follow-up period, with the risk higher among DD than among MDD children (Kovacs 1996). By contrast, children diagnosed with an Adjustment Disorder with depressed mood (one or a few depressive symptoms in reaction to a stressor) were not at risk of developing MDD during follow up.

Depression is associated with age and with gender Rates are higher in adolescents than in children. Phenomenology also differs to some extent by age, with adolescents with MDD more likely than children to have anhedonia, hypersomnia, weight change, or lethal suicide attempts. Among depressed children there is equal gender representation, but in adolescents the ratio is about two females to one male, similar to the pattern among adults. The reasons for gender differences in adolescent depression are the focus of considerable current research. Sociocultural pressures on girls, biological changes associated with puberty, and sex differences in cognitive coping mechanisms have been proposed as possible explanations. Risk factors include a family history of depression, previous depressive episodes, family conflict, uncertainty regarding sexual orientation, poor academic performance and co morbid conditions such as dysthymia, anxiety disorders and substance abuse disorders (Birmaher et al. 1996).

In a large study on 1% of total students in preparatory schools in Egypt (in Alexandria), pupils demonstrated depressive scores constituting 10.25% (Abou Nazel, 1989). Depression scores rated the highest among the eldest age group 20.32%. Girls were highly represented among depression scores as compared to boys 56.25% versus 43.75%. When the psychological profile of students rating high on depression scale was analyzed, lack of communication and presence of child parents conflicts ranked the first (23.42%) followed by parental conflicts (20.72%).

Frequent complaints of physical symptoms among those children and adolescents for more than six months was rated by 90.09% among

depressed scores as compared to 6.31% among non depressed children (Abou Nazel et al., 1991). Concerning suicidal history, adolescents who had a positive history rated higher among depressed scores 93.69% (Seif El Din, 1990).

In another study done by Seif El Din et al. (1991) to analyze children getting very high scores on (CDI) half of the cases had a clinical diagnosis of depressive episode with varying degrees of severity. Among this sample by clinical assessment 10% of them were following conduct disorder criteria and 15% were mixed anxiety and depressive disorder as in ICD-10 criteria.

Chapter II

Clinical diagnosis of depression in children

Classification and diagnostic criteria of depression in children

The need for an appropriate diagnostic classification of childhood depression became apparent, by identifying requisite signs and symptoms of depression and commented on the persistence, pervasiveness and impairment that defined a disorder versus a stress reaction. Furthermore, comment on the family history, discussing personality characteristics, and noting the frequent co-occurrence of depression and anxiety in children. In the initial classification there were three types of childhood depression: acute, chronic and masked (Cytryn and McKnew, 1972).

The acute and chronic types had similar features: These included severe impairment of the child's scholastic and social adjustment, disturbance of sleep and appetite, feelings of despair, helplessness and hopelessness, retardation of movement, and suicidal thoughts and/or attempts. The main difference between the acute and chronic types lay in the precipitating causes, the child's adjustment prior to the beginning of the illness; the duration of the disorder, and the family history. In the children with chronic depression, the immediate precipitating cause was not always evident and the illness lasted for many months, or even years. There was a marginal social and emotional adjustment, a history of previous depressive episodes, and a family history of unipolar or bipolar depression in close family members, particularly the mother (Cytryn et al., 1980).

Children with the acute type of depression seemed to fall ill in response to some traumatic event involving a loss or separation. In the masked category, the depression did not manifest in a clearly recognizable form; rather, the child showed a variety of emotional disorders, including hyperactivity, aggressive behavior, psychosomatic illness, hypochondriasis, and delinquency. The

underlying depression is inferred from the periodic displays of overt depressive affect. School aged children are cognitively able to internalize environmental stressors (e.g., family conflict, criticism, failure to achieve academically) and display low self esteem and excessive guilt. However, much of this internal turmoil is expressed through somatic complaints (headaches, stomachaches), anxiety (school phobia, excessive separation anxiety) and irritability (temper tantrums and other behavioral problems). It is important to note that some depressed children attempt to compensate for their low self esteem by trying to please others and be accepted. Because in this effort they may excel academically and behave well, their depression may go unnoticed (Cantwell, 1980).

The first two categories of childhood depression—acute and chronic—remained operationally valid until the advent of DSM-III. However, masked depression proved a difficult and controversial entity, which after a time provoked vigorous discussion. After a careful deliberation and reexamination of the patients' charts on which the original classification was based, concluding: If the acting out behavior or other psychiatric symptoms predominate and the depression seems of less magnitude in the clinical picture, the child should properly be diagnosed as having a given disorder with depressive features. On the other hand, if the child fits the established criteria for a depressive disorder, that should be the primary diagnosis with other diagnostic features stated as ancillary (Cytryn et al., 1980).

Since the advent of symptom-driven diagnosis in US psychiatry in 1980, the same diagnostic criteria used to diagnose depressive disorders in adults have been applied to children and adolescents. At present, the diagnosis of Major Depressive Disorder (MDD) requires at least one episode in which the child has had five or more of the following symptoms, including one of the first two, for a minimum of two weeks: (a) depressed or irritable mood; (b) markedly diminished interest or pleasure in activities; (c) weight or appetite loss or gain; (d) insomnia or hypersomnia; (e) psychomotor agitation or retardation; (f) fatigue or loss of energy; (g) feelings of worthlessness or excessive guilt; (h) decreased ability to think, concentrate, or make decisions; (i) recurrent thoughts of death or suicide or a suicide attempt or plan. The diagnosis of Dysthymic

Disorder (DD) is given if depressed or irritable mood is present most days for a year or more, and if mood disturbance is accompanied by two or more of six key symptoms: poor appetite or excessive eating, insomnia or hypersomnia, low energy or fatigue, low self-esteem, poor concentration or difficulty making decisions, and feelings of hopelessness. MDD and DD are not mutually exclusive, and some children or adolescents present with a long-standing DD, upon which an episode of MDD has been superimposed: a condition referred to as 'double depression' (APA, 2002).