

Early Onset Non-Affective Psychosis: Clinical and Developmental Perspectives

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الذهان المبكر غير الوجداني : منظورات إكلينيكية و تطورية
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Abstract

Introduction: Childhood psychosis is a rare disorder with much controversy between studies investigating its clinical features and premorbid function. Data concerning early onset non-affective psychosis is still lacking. **Aim:** The aim of this study was to describe socio-demographic data, early development, pre-morbid function and clinical characteristics of children presenting with early onset non-affective psychosis. **Methods:** Forty two Saudi patients with child and adolescent onset psychosis diagnosed according to DSM-IV criteria were assessed using Schedule for Affective Disorders and Schizophrenia for School Aged Children Present and Lifetime Version (K-SADS-PL) and positive and negative symptom scale (PANSS). Developmental aspects and premorbid function were assessed by General Developmental Scale (GDS), Childhood Behavioral Scale (CBS) and Premorbid Adjustment Scale (PAS). All data were subjected to statistical analysis. **Results:** The sample included 27 patients diagnosed with schizophrenia, 10 with psychotic disorder not otherwise specified and 5 with acute psychotic episode. 61.9 % of the sample had gradual onset and 38.1% had acute onset. The mean age of onset was 12.3 ± 3.8 . Negative symptoms were more manifested than positive symptoms among the whole sample. The most frequently reported positive symptoms were hallucinations (95.2%). Physiological disturbances were relatively common as disturbed sleep (81%), appetite disturbances (28.6%) and impaired sphincter control (14.3%). All schizophrenic and non-schizophrenic children were similar in having impairment in early development and premorbid functions that were significantly correlated with more negative symptoms and younger age of onset. **Conclusions:** The developmental and premorbid impairments are more emphasized in children with early onset non-affective psychosis and significantly influence the clinical presentation.

Introduction

Psychosis presented in childhood and adolescence has been a controversial topic throughout the history of the field of child psychiatry because of the conundrum of diagnostic clarity¹. Most

of knowledge about schizophrenia comes from studies conducted on adults. Despite nosological similarities between adult and childhood onset schizophrenia yet, the age and developmental stage of the individuals

with the disorder influence the way they experience and react to it². In addition, the insidious onset in at least 75% of children, the high rates of premorbid problems and the hesitancy of clinicians to make a diagnosis of schizophrenia in a child usually delay the recognition of the syndrome³. So, there is a need for more research concerned with phenomenology and etiology of early onset psychosis to improve understanding and management of this syndrome.

Hypothesis and Aim:

Impairment of premorbid functioning has received much attention in the research of schizophrenia and other related psychoses and is considered an important hypothesis but most of studies were western studies in adult patients. So the main aims of the current study were to test the credibility of this hypothesis and to describe socio-demographic data, early developmental and pre-morbid functions and clinical characteristics of Arab sample of children presenting with early onset non-affective psychosis.

Methods

This work was a cross-sectional descriptive study, done at Al-Amal Complex for Mental Health, Dammam, Kingdom of Saudi Arabia (KSA) in the period between May 2005 and October 2008. The study was approved by the scientific and ethical committee of the complex. Patients were recruited from the child psychiatry clinic according to certain inclusion and exclusion criteria.

Inclusion criteria included; age of onset of psychosis before 18 years, with upper age limit for the study 18 years. In order to make the sample homogenous as much as possible exclusion criteria included any DSM-IV axis I diagnosis from the following disorders: schizoaffective, bipolar, Major depression, substance induced psychotic disorder in addition to exclusion of cases with known organic pathology. However, patients with past history of epilepsy or febrile convulsions were not excluded. Diagnosis of non-affective psychosis was based on DSM-IV and confirmed by Schedule for Affective Disorders and Schizophrenia for School Aged Children Present and Lifetime Version (K-SADS-PL)⁴. All patients presented to child and adolescence outpatient clinic (N=864) were screened for psychosis through the general part of K-SADS-PL. Seventy three patients were positive for psychosis so assessed again in a second interview with the psychotic supplement of K-SADS-PL. Sixty six out of 73 proved to be psychotic. Those who met inclusion and exclusion criteria and gave informed consent by themselves and their legal guardians were 47, of which 42 patients completed the study. Assessment was done by three psychiatrists with good inter-rater reliability.

A control group consisted of 21 normal healthy volunteers, selected from general pediatric outpatient clinic for the same catchments area of the

hospital. The group included 10 males and 11 females, with no past history of psychiatric disorders and was matched for age, sex and other socio-demographic data.

Instruments and Procedures

Patients were assessed through the following procedures: **1)** history taking and mental state examination, **2)** K-SADS-PL for diagnosis and clinical assessment of psychotic symptoms⁴, **3)** Positive and negative symptoms scale (PANSS) for assessment of severity of psychosis⁵, **4)** IQ evaluation via Stanford Binet Intelligence Test⁶, **5)** Lewis Murray Scale for assessment of Obstetric complications⁷, **6)** Children's Global assessment scale for evaluating the level of general functioning⁸, **7)** General Developmental scale (GDS)⁹ **8)** Child Behavior Scale (CBS)¹⁰ and lastly **9)** pre Morbid Adjustment Scale (PAS)¹¹.

GDS was used to record early childhood developmental delay and neurodevelopmental problems and covered seven areas: motor milestones, language milestones, social development, reading problems, neurodevelopmental problems, enuresis and encopresis. The Total GDS score range from 0 to 12 and higher scores indicate more developmental impairments.

CBS was used for rating of the pre morbid period which ends 12 months before the onset of the first psychotic symptoms. The scale has 10 aspects: social isolation, social aloofness, separation anxiety; unusual stereotyped interest, deviant social communication,

affect, suspiciousness, thought content, deviant speech and antisocial behavior. Total CBS Score is 0-20 and higher scores indicate more premorbid impairments.

PAS is consisted of 28-items and assesses sociability and withdrawal, peer relationships, adaptation to school, and scholastic performance in four life stages (childhood, early adolescence, late adolescence; adulthood). Higher scores of PAS indicate poorer function. PAS also assesses socio sexual aspect after age 15 but this item was excluded from application because of cultural differences. PAS was used for both patients and control groups as the test has no cutoff score.

Also it is important to mention that inter-rater reliability for tools used were good as kappa was ≥ 0.8 .

Statistical analysis

Analysis of the data was done using SPSS, version 10 (statistical program for social science), with descriptive statistics, Chi square and cross stab for analysis and relation of categorical variables. Mann Whitney and Kruskal-Wallis test were used to compare quantitative variables in the same group instead of independent group t test and one way between group (ANOVA) because of the non-parametric criteria of the data (SD>50% mean). Spearman's rank correlation was also used.

Results

Socio-demographic and clinical data

Total number of patients was 42, with age range 7 to 18 years. They included 20 males and 22 females with no

significant difference as $df = 1$ and P value 0.095. The mean age was 15.05 ± 3 . The sample included 27 schizophrenic, 10 psychotic disorders not otherwise specified and 5 cases with

brief psychotic episode. Within the schizophrenic group, 11 were paranoid, 7 were undifferentiated and 9 were disorganized.

Table (1) Demographic and clinical data

Variable		Whole sample (n= 42)	Schizophrenia (n= 27)	Non Schizophrenia (n= 15)	P value
Sex No. and %	Male	20 (47.6%)	9(33.3%)	11 (73.3%)	.013*
	Female	22(52.4%)	18(66.7%)	4 (26.7%)	
Age of onset		12.3+/-3.8	12.04+/-3.72	12.8+/-4.02	.539
Mode of onset	Acute	16 (38.1%)	7 (25.9%)	9 (60%)	0.029*
	Gradual	26 (61.9%)	20 (74.1%)	6 (40%)	
Family history No. and %	Schiz	19 (45.2%)	13 (48.1%)	6 (40%)	.634
	MR	5 (11.9%)	3 (11.1%)	2 (13.3%)	
	Anxiety	1 (2.4%)	1 (3.7%)	00	
	Epilepsy	1 (2.4%)	00	1 (6.7%)	
Past history No. and %	MR	11 (26.2%)	6 (48.1%)	5 (33.3%)	.763
	Autism	6 (14.3%)	3 (11.1%)	3 (20%)	
	Conduct	2 (4.8%)	2 (7.4%)	00	
	Anxiety	2 (4.8%)	1 (3.7%)	1 (6.7%)	
	Epilepsy	12 (28.6%)	8 (29.6%)-	4 (26.7%)	
Obstetric Complication No. and %	yes	8 (19%)	5 (18.5%)	3 (20%)	.780
	No	26 (61.9%)	16 (59.3%)	10 (66.7%)	
	Unknown	8 (19%)	6 (22.2%)	2 (13.3%)	
GDS, mean & SD	Total	2.6 ±3.3	2.3±3	3.1±3.9	.777
CBS, mean & SD	score	6.3±4.6	6.8±4.2	5.6±5.2	.405
PAS, mean & SD		12.2±6.3	12.9±6.1	11±6.6	.399
PANSS, mean &SD	Positive	27.7±6.4	27.3±5.4	28.3±7.8	.568
	Negative	29.3±11.9	33.4±11.1	22.6±10.3	.003**
	General	56±13.2	58.1±11.4	52.6±15.6	.385
IQ No. and %	Average	23 (54.8%)	14 (51.9%)	9 (60%)	.199
	Borderline	8 (19%)	7 (25.9%)	1 (6.7%)	
	MR	11 (26.2%)	6 (22.2%)	5 (33.3%)	

* P value is significant; ** P value is highly significant. CBS: Child Behavior Scale. Higher scores indicate more impairment. GDS: General Developmental Scale. Higher scores indicate more impairment. PAS: Premorbid adjustment scale. Higher scores indicate poorer function. PANSS: Positive and Negative symptoms Scale.

Within the schizophrenic group, there was significant difference between mean age of onset and subtypes of

schizophrenia as the mean age of paranoid patients was 14.1 ± 2.7 years, for undifferentiated was 10.9 ± 4.3 years

and for disorganized was 10.4 ± 3.5 years and the p value was 0.03.

2. Clinical symptoms

Table (2) Description of psychotic symptoms as assessed by PANSS. :

Symptoms		Frequency N &(%)	Severity by PANSS Mean \pm SD
Highest Score	Judgment	37 (88.1%)	5.9 \pm 1.8
	Hallucinations	40 (95.2%)	5.5 \pm 1.8
	Difficult abstraction	30 (71.4%)	4.8 \pm 2.3
	Excitement	30 (71.4%)	4.8 \pm 2.2
	Delusion	28 (66.7%)	4.6 \pm 2.2
	Blunted affect	27 (64.3%)	4.3 \pm 2.2
	Formal thought disorder	18 (42.9%)	3.3 \pm 1.8
Lowest Score	Somatic	3 (7.1%)	1.6 \pm 1.6
	Grandiosity	3 (7.1%)	1.5 \pm 1.4
	Guilt	1 (2.3%)	1.1 \pm 0.6

NB: Frequency: number of patients having the symptom with score 4 or more

Clinically, the most common symptom was hallucination as 24 patients (57.1%) had auditory hallucination, 13 patients (31%) had both auditory and visual hallucination. There were 28 patients (66.7%) patients with delusion. The delusion was persecutory in 23 patients (54.8%). At the same time, 92.9% of the sample reported disturbed behaviors in form of aggression (n= 23, 54.8%), bizarre behavior (n= 8, 19%) or social isolation (n= 8, 19%). In addition, 81% of the sample reported sleep abnormality in the form of insomnia (n= 27, 64.3%) or hypersomnia (n= 7, 16.7%). Whereas 28.6% of the sample reported appetite abnormalities as diminished appetite (n= 10, 23.8%) or hyperphagia (n= 2, 4.8%). Also, 14.3% of patients reported incontinence, urinary (n = 3 , 701%), stool

incontinence (n= 1, 2.4%) or double incontinence (n= 2, 4.8%). Motor symptoms as hyperactivity, retardation, catatonia and stereotypes were present in 36 (85.7%) of the sample, the most frequent was hyperactivity (n= 17, 40.5%) and the least frequent was catatonia (n= 1, 2.4%). Those with impaired academic achievement were 29 patients (69.1%) versus 4 (9.5%) without impairment while 9 patients (21.4%) didn't join school yet, as age of governmental school entry in Saudi Arabia was 7 years, in addition those with co morbidity with autism didn't join school .

3. Premorbid and developmental status

As shown in table (3) and according to GDS, 11 (26.2%) patients had abnormal motor development , 13 (31%) patients had abnormal language

development, 19 (45.2%) patients had impaired social development, 3 (7.1%) patients had reading difficulties, 6 (14.2%) patients had autism, 4 (9.5%) patients had enuresis and no one had encopresis.

Table (3) the frequency and percentage of sub-items of GDS for all patients

GDS	N (%)
Abnormal motor development	11(26.2%)
Abnormal language development	13(31%)
Impaired social development	19(45.2%)
Reading difficulty	3(7.1%)
Autism	6 (14.2%)
Enuresis	4 (9.5%)
Encopresis	00

GDS : General Developmental Scale.

In table (4), according to CBS, 26 (61.9%) patients had social isolation, 26 (61.9%) patients had deviant social communication, 25 (59.5%) patients had social aloofness, 22 (52.4%) had abnormal affect, 17 (40.5%) patients had stereotyped interest, 14 (33.3%) patients had abnormal thought content, 8 (19%) patients had separation anxiety, 8 (19%) patients had deviant speech and 8 (19%) patients had antisocial behavior.

Table (4) the frequency and percentage of sub-items of CBS for all patients

CBS	N (%) in the whole sample
Social isolation	26 (61.9%)
Deviant Social Communication	26 (61.9%)
Social Aloofness	25 (59.5%)
Abnormal affect	22 (52.4%)
Stereotyped interest	17 (40.5%)
Abnormal thought content	14(33.3%)
Separation anxiety	8 (19%)
Deviant speech	8 (19%)
Antisocial behavior	8 (19%)

CBS: Child Behavior Scale

Table (5) Comparison between patients and control regarding premorbid function.

PAS	Patient M±SD	Control M±SD	P value
PAS total score	12.2±6.3	2±1.9	.000**
PAS Childhood stage	11.5±6.5	1.7±1.9	.000**
PAS early adolescence	10.7±6.6	1.9±1.9	.003**
PAS late adolescence	6±6.8	1.2±1	.180

Note: * p value is significant; ** p value is highly significant

PAS: Premorbid Adjustment Scale, Higher scores of PAS indicate poorer function

Early Onset Non-Affective Psychosis

As shown in table 5, there were highly significant differences between patients and control regarding all stages of PAS except for late adolescence stage. Compared with control children most

severe impairment in subscales of PAS were school performance and peer relation in childhood phase as the mean were (3.5, SD \pm 1.8 and 3.3 \pm 2.1) respectively.

Table (6) Correlation between premorbid state and PANSS, GAS, mode of onset and age of onset (r-value)

Premorbid function	PANSS			GAS	Mod of onset	Age of onset
	Positive	Negative	GPS			
GDS	-0.4**	0.2	-0.2	-0.09	.2	-0.5**
CBS	-0.3*	0.3*	-0.2	-0.1	.5**	-0.5**
PAS	-0.2	0.6**	-0.007	-0.3*	.4**	-0.5**
GAS	-0.2	-0.4**	-0.4**	-----	-.1	-0.02
Age of onset	0.3*	-0.05	0.2	-0.02	-.3*	-----

NB: * indicates significant $p < 0.1$; ** indicated highly significant $p < 0.01$

GDS: General Developmental Scale; CBS: Child Behavior Scale; PAS: Premorbid Adjustment Scale; GAS: Global Assessment Scale; GPS: General Psychopathology Scale

As shown in table 6, the age of onset of psychosis and its mode of onset were significantly related to early development and premorbid functions (GDS, CBS and PAS). Moreover early development and premorbid functions (GDS, CBS, and PAS) were significantly related to psychotic symptoms (positive and negative) while current functioning (GAS) was significantly related to negative symptoms and GPS.

As shown in table (7) premorbid function was poorer in those with gradual onset rather than acute onset group as PAS were 12.5 \pm 5.9 and 9.4 \pm 5.9 while GDS were 2.9 \pm 3.5 and 2.2 \pm 3. Lastly, CBS were 7.9 \pm 4.1 and 3.8 \pm 4.3 with marked significant difference as p was .004. Furthermore there was significant difference in age of onset in the different mode of onset as it was 14.2 \pm 2 in acute onset group and 11.2 \pm 4.2 in gradual onset group with p value .03.

Table (7) correlation between mode of onset and PAS, GDS, CBS and age of onset

Variable	GRADUAL ONSET	ACUTE ONSET	P VALUE
PAS mean & SD	12.5 \pm 5.9	9.4 \pm 5.9	0.004**
GDS, mean & SD	2.9 \pm 3.5	2.2 \pm 3	
CBS, mean & SD	7.9 \pm 4.1	3.8 \pm 4.3	
AGE Of ONSET, Mean & SD	11.2 \pm 4.2	14.2 \pm 2	0.03*

NB: * indicates significant $p < 0.1$; ** indicated highly significant $p < 0.01$

GDS : General Developmental Scale; CBS : Child Behavior Scale. ; PAS: Premorbid Adjustment Scale.

Using Spearman's correlation, there was no significant relation between family history of schizophrenia and symptoms severity; positive symptoms, negative symptoms and GPS (p-value was 0.869, 0.471 and 0.482 respectively) or with premorbid state (p= .436).

Discussion:

Diagnostic dilemma

Childhood schizophrenia is a rare but serious disorder with complex symptoms that affect children and their families. The term childhood schizophrenia was once applied for all childhood psychoses, including autism and mood disorders, but more recently, researchers have distinguished childhood schizophrenia from other disorders.

Going with the conceptualization of clinical entity and in a trial to make the sample of patients homogenous as much as possible, affective and organic psychoses were excluded from this study, but only atypical psychosis (psychotic disorder not otherwise specified) and brief psychotic episode were included. Ten cases of the patients in the current study were diagnosed as psychotic disorder not otherwise specified. This diagnosis may be given due to the use of same adult criteria without considering the developmental stage of the children or due to hesitancy of the clinician to stigmatize the child with diagnosis of schizophrenia. The same findings were reported by Hollis⁹ who found that the vast majority of adult schizophrenia

was originally assigned as having atypical or other unspecified psychoses in childhood or early adolescence.

In addition, Masi et al³ reported that, the developmental immaturity causing hesitancy on part of clinicians to make a diagnosis of schizophrenia in a child and the relative inadequacy of fulfilling diagnostic criteria in children increases the tendency to diagnose more atypical psychosis than childhood schizophrenia.

In those having diagnosis of schizophrenia, the relative predominance was for paranoid subtype which contrasts literatures reporting disorganized subtype to be most common of childhood schizophrenia¹². This may be related to higher age group and older age of onset in the current sample (12.3 ±3.8). Nevertheless, the mean age of onset in this study was similar to other studies like Remschmidt *et al*¹³ in which the mean age of onset was 12.7±2.5 and Hollis's study⁹ in which the mean age of onset was 14.4 years ±1.5. Moreover, from table 6, the age of onset was negatively correlated to developmental, behavioral and premorbid states and positively correlated with positive symptoms. This means that the older age of onset, the more the positive symptoms and less premorbid and developmental impairment, which was reported in literature to be more characteristic of the paranoid type of schizophrenia¹².

2. Clinical symptoms

There are differing views on the continuity of childhood schizophrenia

into adult schizophrenia and on similarities and differences between childhood-onset and adult-onset forms of the disorder. In the current study, patients showed more gradual onset and higher scores of negative symptoms more than positive symptoms. These findings were more evident in schizophrenic than non-schizophrenic children (table 1) and were similar to other studies^{9, 14, 15, 16}.

A number of symptoms have been identified in psychotic children. The most frequent symptoms reported in this study were hallucinations in 95.2% more than delusions in 66.7%. Similarly, Russell's study¹⁵ reported that 63% of schizophrenic children presented with delusions and 80% with auditory hallucinations.

While the most severe symptoms among PANSS positive subscale was impaired judgment and among negative subscale was difficult abstraction followed by blunted affect and emotional withdrawal, which agreed with the reporting of Hollis¹².

Generally, many symptoms may be over estimated or under estimated according to developmental stage of the child especially symptoms like judgment and abstraction. So, it is especially important for diagnosticians to consider child's development when assessing the presence or absence of the diagnostic criteria for schizophrenia.

Blunted affect was found in 27(64.3%) patients and formal thought disorder was found in 18(42.9%) patients and

these findings were similar to what was reported in the literatures¹⁷. Furthermore, sleep and appetite disturbances as well as disturbances in motor behavior were seen in a high proportion of patients. These findings were similarly reported in other studies^{14, 17, 18}.

Another important finding is the rate of psychotic children having below average IQ (26.2% of the sample had mild to moderate MR and 19% had borderline IQ). This down shift of IQ has been previously reported by other studies^{7, 9, 19}. It is still debatable whether it is a premorbid trait and expression of impaired early brain development as hypothesized by Murray and Lewis⁷ and Weinberger¹⁹, or it is a consequence of psychotic process with failure to learn rather than loss of function as reported by Rajkumar and David¹⁷. In the current study, 26.2% of patients had past history of mental retardation so the first explanation looks more logic for them while the second explanation may be more logic for patients who had borderline IQ (19%). Intellectual delays have long been considered as general risk factor for psychopathology and psychosis in children²⁰. But, 69.1% of the patients in the current study had impaired academic achievement indicating impairment of function and may be part of cognitive impairment as well. Similar report by Fuller et al²¹ suggested that, deterioration in scholastic performance occurs at age 13-16 years may be a precursor to the

cognitive impairment seen during the first episode of illness.

3. Premorbid status and family history

The results of the current study as well as previous, studies^{9, 22, 23, 24} strongly agreed that children with early-onset psychosis show frequent developmental abnormalities as impairment in social skills, language and motor abilities and school achievements prior to presenting signs of schizophrenia. Moreover, Volkmar²⁵ suggested a developmental continuity from premorbid impairment to negative symptoms with difficulty to differentiate between premorbid and active psychotic states and this was applicable in the current study at least for patients who had gradual insidious onset.

As shown in table 6, more impairment in premorbid function as indicated by PAS is associated with more negative symptoms, which appear to affect the current functioning as shown by GAS. At the same time, the developmental and behavioral problems predating onset of psychosis (GDS, CBS) were significantly correlated to severity of psychotic symptoms, mode of onset and age of onset rather than current functioning (GAS).

Similar to other studies^{9,15}, the current study found positive past history for other psychiatric disorders as mental retardation, autism, conduct and anxiety disorders in 50% of cases.

One of the vulnerability factors frequently reported in schizophrenia is the presence of positive family history

for psychosis in general^{9,26}. In the current study, 13 schizophrenic patients (48.1%) had history of schizophrenia in at least one of their first-degree relatives although; there were no significant differences between patients with positive family history of schizophrenia and those without, in symptom severity nor in premorbid function. The same finding was also found by Canon *et al*²⁷ who reported that PAS scores did not differ significantly between the subjects with positive family history of psychosis and those without.

Limitations

Although this study presents a general cross-sectional design, GDS, CBS and PAS are instruments used for the evaluation of development or past functioning. Since subjects PAS ratings are compared with controls' ratings, it would be important to take into account the fact that retrospective data might be memory biased. The authors tried to minimize the bias through assessment of each patient by two examiners and in different sessions.

In this study there was a trial to make the sample homogenous as much as possible however co-morbidities as mental retardation, autism and epilepsy were not excluded as they were highly prevalent in the sample which may indicate impaired premorbid status, vulnerability factor or shared same etiology as all are neurodevelopmental disorders. This point may be a source of bias in the

study but it is the same like previous studies^{9,15, 17}. Because of rarity of non-affective psychosis in children, cases were recruited over a period of 3.5 years to include a fairly adequate number of cases.

Conclusion

The current study on Arab sample of patients agreed with other western studies that most of patients of non affective childhood psychosis had gradual onset and more negative symptoms especially for schizophrenic cases. Paranoid schizophrenia was the most prevalent subtype in the study. Also, there was marked impairment in developmental and premorbid function. The developmental stage of the child

influences the disease process and colors the psychotic symptoms with more atypical form. The premorbid level of functioning appear to influence the mode and time of onset of psychosis as well as later functioning after developing psychosis, and has important predictive and prognostic value. So, Psychiatrists should consider those children with developmental, social and behavioral impairment as high risk for developing psychosis. Also, there is an urgent need for new diagnostic assessment tools that take into consideration the stage of child maturation and diagnostic criteria for psychosis in children.

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الخلاصة:

المقدمة: يعتبر الذهان من الإضطرابات النادرة لدى الأطفال و تختلف الدراسات في وصف الأعراض الإكلينيكية و علاقتها بتطور الوظائف الطبيعية قبل المرض. و من الجدير بالذكر أن عدد الدراسات التي تبحث في هذا الموضوع قليل للغاية و على أعداد قليلة و خاصة في الدول العربية. **الأهداف:** هدفت هذه الدراسة إلى وصف أعراض الذهان غير الوجداني و علاقتها بالوظائف التطورية و الخصائص الديموجرافية. **الطريقة:** تم عمل الدراسة في أحد مستشفيات وزارة الصحة بالسعودية و شملت الدراسة عدد 42 حالة و تم تشخيص الحالات بناء على التقسيم الامريكى الرابع للأمراض النفسية و شملت المقاييس التي تم تطبيقها كلاً من مقياس الفصام و الإضطرابات الوجدانية في المرحلة العمرية المدرسية و مقياس الأعراض الموجبة و السالبة و المقياس التطوري العام و المقياس السلوكي للأطفال و مقياس التكيف في مرحلة ما قبل المرض، و بعد جمع البيانات و تطبيق الإختبارات خضعت كل المعلومات إلى التحليل الإحصائي. **النتائج:** كان عدد مرضى الفصام 27 حالة و عدد مرضى الذهان غير الفصامي 15 حالة و كان تطور المرض تدريجياً في نسبة 61.9% من الحالات و كان معدل العمر 12.3 ± 3.8 سنة و كانت الأعراض لسالبة أكثر حدوثاً من الأعراض الموجبة و مثلت إضطرابات النوم 81% من العينة و إضطرابات شهية الكل 28.6% و كان هناك قصور واضح في التطور و وظائف ما قبل المرض و خاصة عند مرضى الأعراض السالبة. **الإستنتاج:** تؤكد هذه الدراسة وجود قصور في التطور و وظائف ما قبل المرض لدى الأطفال و أن هذا القصور يؤثر على شكل الاعراض الذهانية لديهم.

References

1. Courvoisier H, Labellarte MJ, and Riddle MA: Psychosis in children: diagnosis and treatment. *Dialogues in clinical neuroscience*, 2001, 3(2): 79.
2. American Academy of Child and Adolescent Psychiatry: Practice parameters for the assessment and treatment of children and adolescents with schizophrenia. *J Am Acad Child Adolesc Psychiatry*, 1997; 36(10): 177S-93S.
3. Masi G. Mucci M. and Pari C: Children with schizophrenia: clinical picture and pharmacological treatment. *CNS Drugs*, 2006, 20(10):841-866.
4. Kaufman J, Birmaher B, Brent DA, Ryan ND, Rao U: K-SADS-Pl. *J Am Acad Child Adolesc Psychiatry* 2000, 39:1208.
5. Andreasen NC: The Scale for the Assessment of Positive Symptoms (SAPS). Iowa City, IA: The University of Iowa; 1984
6. Hanoura M. Abdel Hamid: Stanford Binet Intelligence test: Arabic Version. Cairo: Anglo press; 2002.
7. Lewis SW, Owen M.J. and Murray RM: Obstetric complications and schizophrenia: Methodology and mechanisms. In *Schizophrenia: Scientific progress*. Edited by Schultz SC and Tamminga CA. New York: Oxford University Press 1989:56-68.
8. Shaffer D , Gould MS, Brasic J, Ambrosini P , Fisher B, Bird H, Aluwahlia SA: Children 's Global assessment Scale (CGAS). *Arch. Gen. Psychiatry*, 1983, 40:1228-1231.
9. Hollis C: Developmental Precursors of Child and Adolescent Schizophrenia and affective Psychosis: diagnostic specificity and continuity with symptom Dimensions. *Br J Psychiatry*, 2003, 182: 37-44.
10. Forster A, Lewis S and Owen M, Murray R: Premorbid adjustment and personality in psychosis: Effect of sex and diagnosis. *Br J Psychiatry*, 1991, 158:171-176.
11. Cannon-Spoor EH, Potkin SG and Wyatt RJ: Premorbid adjustment in chronic schizophrenia. *Schizophrenia Bull*, 1982, 8: 470-484.
12. Hollis C: Adolescent schizophrenia. *Advances in Psychiatric Treatment*, 2000, 6: 83-92.
13. Remschmidt H, Martin M , Fleischhaker C, Theisen FM, Hennighausen K, Gutenbrunner C and Schulz E: Forty-two-years later: The outcome of childhood-onset schizophrenia. *Journal of Neural Transmission*, 2007, 11 (4):505-512.

14. Schultz SK, Ho BC. and Andreasen NC:. Clinical Features Characterizing Young-Onset and Intermediate-Onset Schizophrenia. *J Neuropsychiatry Clin Neurosci*, 2000, 12:502-505
15. Russell AT: The clinical presentation of childhood-onset Schizophrenia. *Schizophrenia Bull*, 1994, 20:631-646.
16. Ballageer T, Malla A, Manchanda R, Takhar J, Haricharan R: Is adolescent-onset first-episode psychosis different from adult onset?.*J Am Acad Child Adolesc Psychiatry* , 2005, 44(8):782-9.
17. Rajkumar K. and David W: Schizophrenia and Other Psychoses. [<http://emedicine.medscape.com/article/914840-followup>]
18. Matti AA, Tossell J , Greenstein DK, Addington A, Clasen LS, Gornick MC, Seal J, Inoff-Germin G, Gochman PA, Lenane M, Rapoport JL and Gogtay N: Sleep disturbances in childhood onset schizophrenia. *Schizophrenia Research*, 2006, 86, (1-3): 123-9
19. Weinberger DR.: Implications of normal brain development for the pathogenesis of schizophrenia. *Arch Gen Psychiatry*, 1987, 44(7):660-669.
20. McClellan J. and McCurry C: Neurocognitive Pathways in the development of schizophrenia. *Semin Clin Neuropsychiatry*, 1998, 3:320-332.
21. Fuller R, Nopoulos P, Arndt S, O'Leary D, Ho BC, and Andreasen NC: Longitudinal assessment of premorbid cognitive functioning in patients with schizophrenia through examination of standardized scholastic test performance. *Am J Psychiatry*, 2002, 159(7):1183-1189.
22. - Nicolson R. and Rapoport JL: Childhood onset schizophrenia: rare but worth studying. *Biol Psychiatry*, 1999, 46:1418-1428
23. Nicolson R, Lenane M, Singaracharlu S , Malaspina D, Giedd JN, Hamburger SD, Gochman P, Bedwell J, Thaker GK, Fernandez T, Wudarsky M, Hommer DW and Rapoport JL: Premorbid speech and language impairment in childhood- onset schizophrenia: association with risk factors. *Am J Psychiatry*, 2000, 157, 794-800.
24. Erlenmeyer-Kimling, Rock D, Roberts SA, Janal M, Kestenbaum C, Cornblatt B, Adamo UH and Gottesman II: Attention, memory and motor skills as childhood predictors of schizophrenia related psychosis: the New York high risk project. *Am. J. Psychiatry*, 2000, 157, 1416-1422.
25. Volkmar F: Childhood and adolescent psychosis: a review of the past 10 years. *J Am Aca Child Adolesc Psychiatry*, 1996, 35:457-465.

26. Asarnow RF, Nuechterlein KH, Fogelson D, Subotnik KL, Pyane DA, Russel AT, Asamen J, Kuppinger H, Kendler KS: Schizophrenia and schizophrenia-spectrum personality disorders in the first-degree relatives of children with schizophrenia: the UCLA family study. *Arch Gen Psychiatry*, 2001, 58(6):581-8
27. Cannon M, Jones P, Gilvarry C, Rifkin L, McKenzie K, Foerster A, Murray RMB: Premorbid Social Functioning in Schizophrenia and Bipolar Disorder: Similarities and Differences. *Am J Psychiatry*, 1997, 154:1544-1550.

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