

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

RANZCP 2010
AUCKLAND, NEW ZEALAND
Dr Veronica Stanganelli et al.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

INTRODUCTION

- ◉ Bipolar disorder within young people has been debated for years. It is still controversial in DSM V ⁽¹⁾, whether is possible or not, to find paediatric mania in the spectrum of bipolar disorders.
- ◉ “Irritability” is a target symptom in childhood bipolarity. According to DSM IV TR ⁽²⁾, irritability is a core criteria in oppositional defiant disorder (ODD), major depressive disorder (MDD) and mania. In relation to this classification, irritability qualifies only in childhood as unique criteria for MDD. Besides, it is a major cause of morbidity and distress among children with pervasive developmental disorder (PDD), anxiety disorders, and attention deficit hyperactive disorder (ADHD) ^(3,4)
- ◉ Furthermore, DSM V tries to describe a new disorder called temper dysregulation with dysphoria, pointing out the quality of temper outbursts.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

INTRODUCTION

- ⦿ However, “irritability” is widely used to illustrate youth’s behaviours but is poorly defined and is often misdiagnosed with aggression, violent outbursts, hostility, short-temper and poor impulse control.
- ⦿ Irritable mood last for days or weeks, displays cognitive compromise and may not have specific facial expression like emotions.
- ⦿ It should be distinguished from long-term traits, including unstable personality styles with emotional dysregulation.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

INTRODUCTION

- Irritability could be defined as an unpleasant mood that predisposes towards:
 - specific emotions (e.g. anger),
 - certain cognitions (e.g. hostile appraisals),
 - evident actions (e.g. aggression) and
 - characterised by expressions of negative emotion in interpersonal relationships.⁽⁵⁾

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS DSM IV TR VERSUS DSM V

We defined two possible phenotypes of BD:

- ◉ Narrow phenotype based on classical DSM IV TR classification
- ◉ Broad phenotype based on DSM V (Temper Dys- regulation) ^(3,4)

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

NARROW PHENOTYPE

DSM IV TR ⁽¹⁰⁾ reveals that the “A” criteria for a manic episode requires:

- ◉ “an abnormally, persistently elevated, expansive or irritable mood”
- ◉ lasting at least one week for mania and four days for hypo mania or (any duration if hospitalization is necessary).
- ◉ Three of “B” criteria of mania:

Grandiosity or inflated self-esteem

Decreased need for sleep

Pressured speech

Flight of ideas

Distractibility

Increase of goal directed activity

Risky behaviours.

Whether irritability alone should warrant the diagnosis of juvenile mania or whether episodic irritability should be sufficed, is again unclear.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

BROAD PHENOTYPE- TDD

DSM V ⁽¹⁾ draft has defined Temper dysregulation disorder with dysphoria

A: Disorder characterized by *severe recurrent temper outbursts* in response to common stressors.

- ⦿ 1. Outbursts manifest verbally and/or behaviourally, such as in the form of *verbal rages, or physical aggression towards people or property.*
- ⦿ 2. Reaction is grossly *out of proportion* in intensity or duration to the situation or provocation.
- ⦿ 3. Responses are *inconsistent with developmental level.*

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

BROAD PHENOTYPE-TDD

B: Frequency: three or more times per week.

C: Mood between temper outbursts:

- ⊙ 1. Nearly every day, the mood between temper outbursts, on average, *is persistently negative (irritable, angry, and/or sad)*
- ⊙ 2. The negative mood *is observable by others* (e.g. parents, teachers, peers)

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

BROAD PHENOTYPE- TDD

D: Duration :

Criteria A-C have been present for *at least 12 months*. Throughout that time, *the person has never been without the symptoms of Criteria A-C for more than 3 months at time.*

E. *The temper outbursts and/or negative mood are present in at least two settings (home, school, or with peers) and must be severe in at least one setting.*

F: *Chronological age is at least 6 years (or equivalent developmental level)*

G: *The onset is before age 10 years.*

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

BROAD PHENOTYPE-TDD

H: *In the past year:*

there has never been a *distinct period lasting more than one day* during which elevated or expansive mood was present.

- ⊙ Abnormally elevated mood should be *differentiated from developmentally appropriate mood elevation.*
- ⊙ *Do not occur exclusively during the course* of a psychotic or mood disorder (e.g. MDD, Dysthymic Disorder, Bipolar Disorder); not better accounted for by another mental disorder (PPD, PTSD, Separation anxiety disorder)
- ⊙ Diagnosis can co exist with ODD, ADHD, CD, substance use disorders. However, is no due to physiological effects of drugs or to a general medical or neurological condition.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS DSM IV TR VERSUS DSM V

In paediatric mania the irritability is **episodic**

- Davidson's affective chronometry ^(3,4) suggested differences in emotional reactivity in bipolar children comparing with normal ones. Bipolar children exceed the threshold to elicit a response, as well as in the duration and amplitude of their response.
- Irritability needs to be standardised in rating scales in an easy way in our consultation. (K SADS, CBCL, Overt aggression scale) ^(6,7,8)
 - ✓Duration of states-
 - ✓Frequency of outbursts
 - ✓Severity of the behaviour during the outbursts
 - ✓Verbal irritability, destruction of property, assaults

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

N: 294 INPATIENTS

OBJECTIVES AND METHODS

- ◉ The aim of this paper is to discuss challenges in diagnostic indicators for paediatric bipolar disorder in our clinical practice as rural psychiatrists.
- ◉ Method: We analyse a naturalistic sample of (N: 294) inpatients between 7 to 20 years of age, who were admitted to Mackay Base Hospital(ACU-Children's Ward) from 2002 to 2010.
- ◉ 260 patients were followed up for 5 years. They were diagnosed by an interdisciplinary team using DSM IV TR /Liebenluft classification. (2,4,5)
- ◉ We excluded patients with pervasive developmental disorders, intellectual impairment, substance-induced disorders or due to any medical condition.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

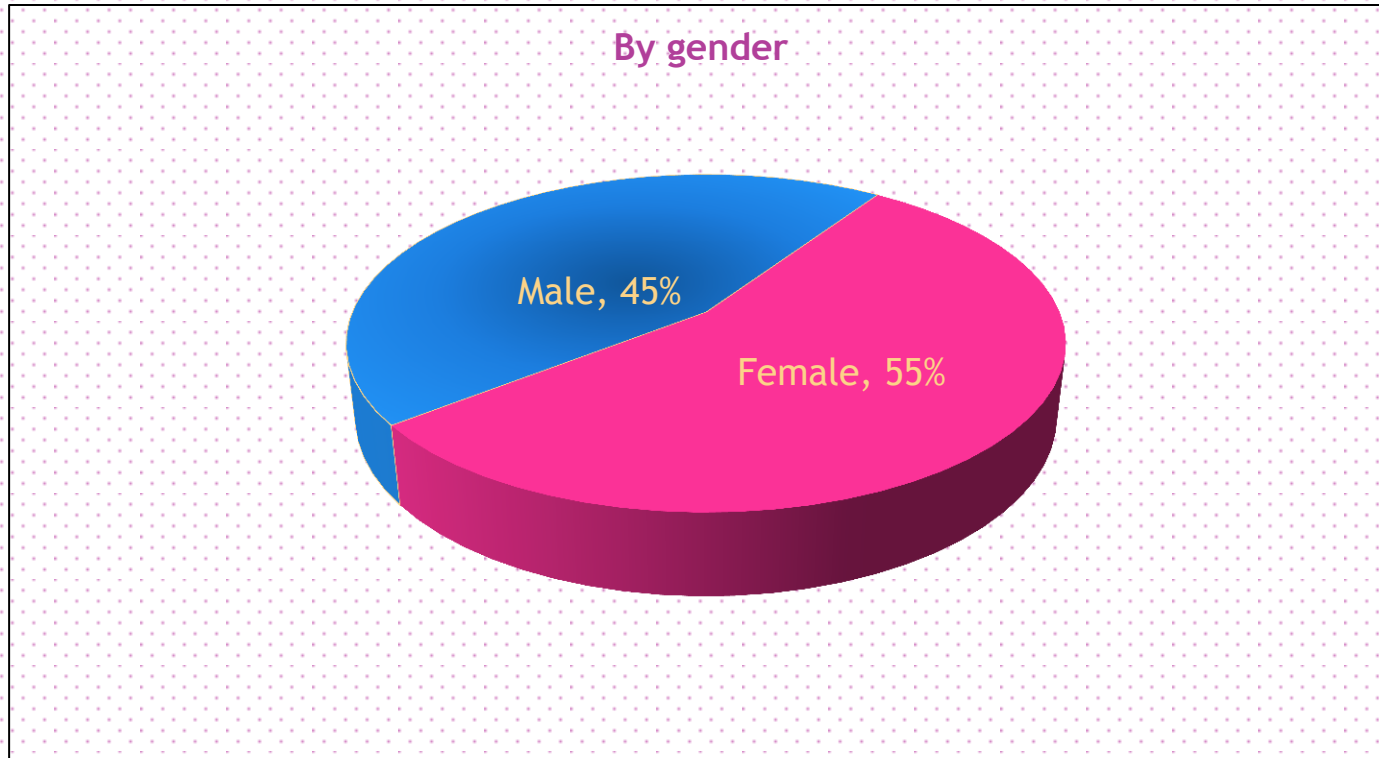
N: 294 INPATIENTS

MACKAY REGION, CENTRAL QUEENSLAND

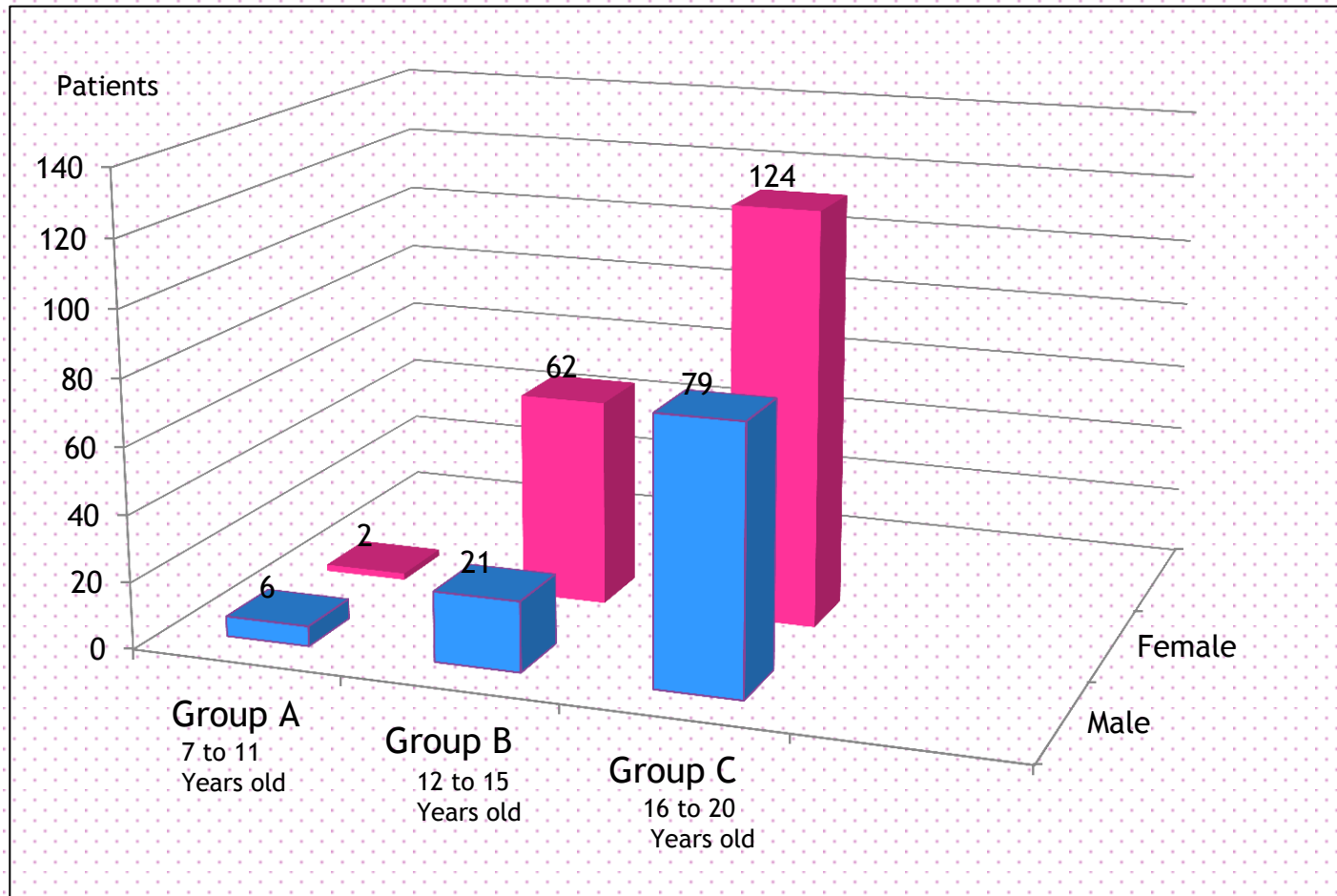
POPULATION: 150,000 INHABITANTS- 20% Indigenous population



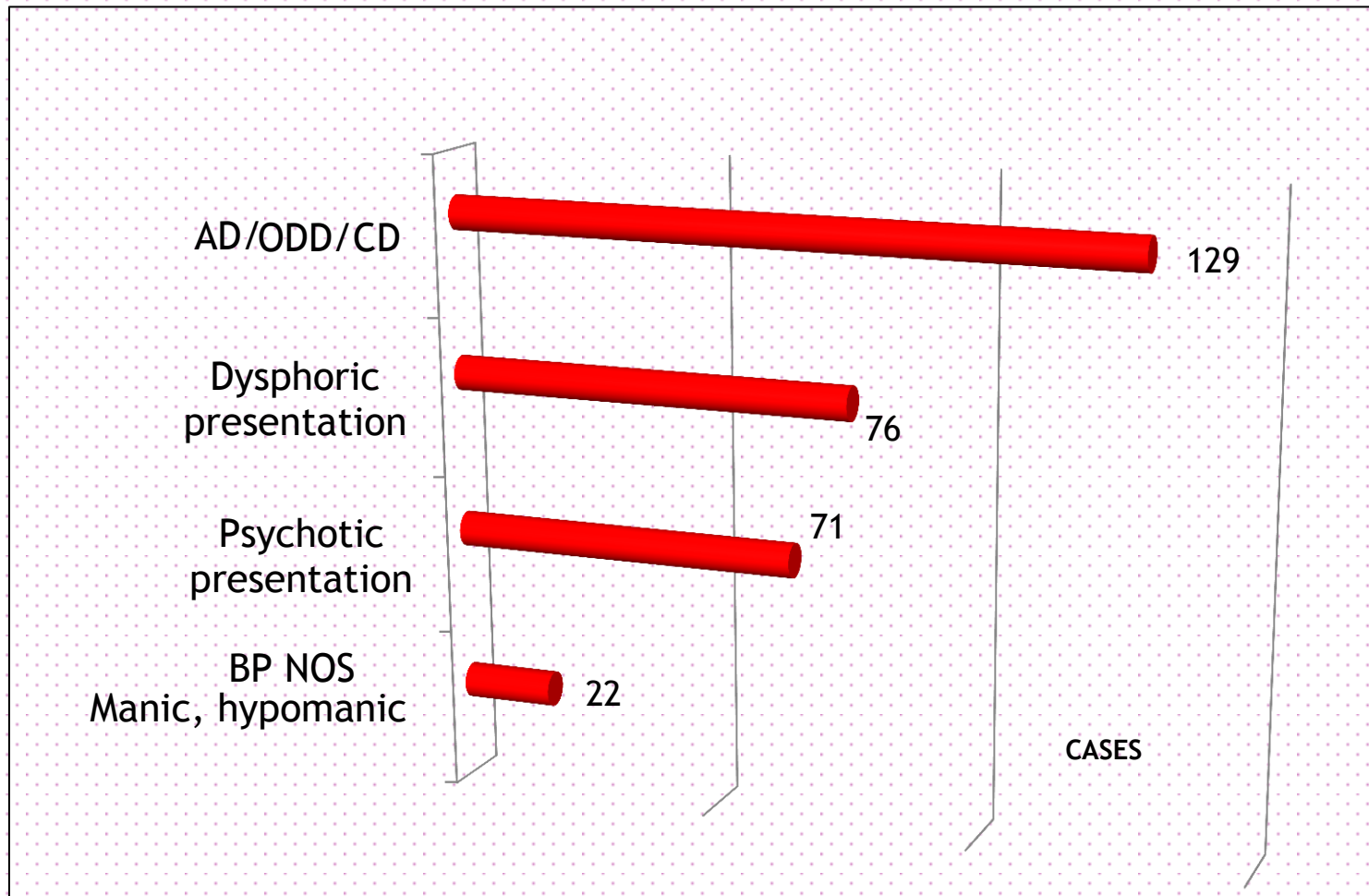
BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS N: 294 INPATIENTS (2002-2010)



BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS N: 294 INPATIENTS (2002-2010) BY AGE



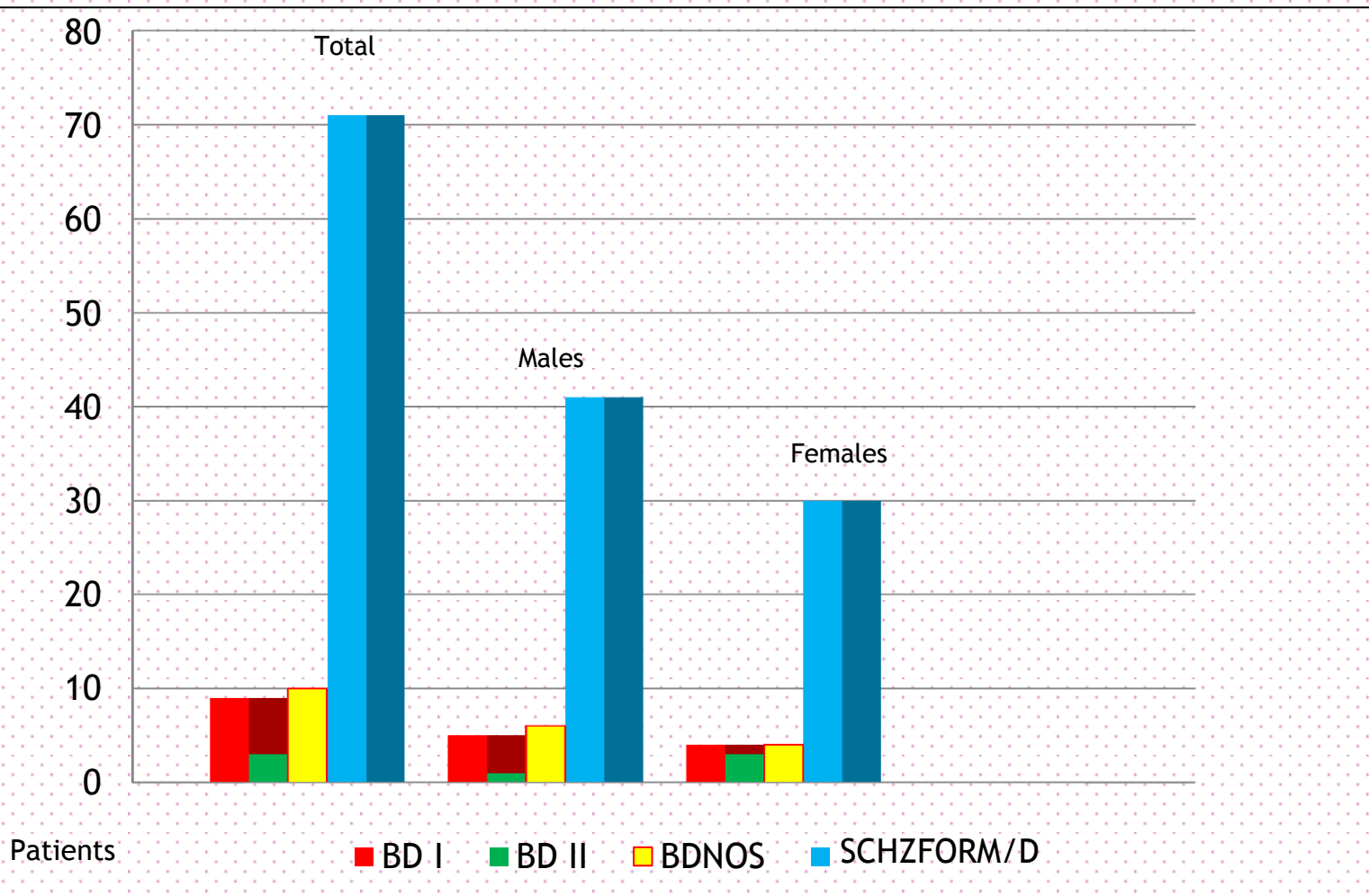
BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS
N: 294 INPATIENTS (2002-2010)
BASED ON MOOD DYSREGULATION



BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

N: 294 INPATIENTS (2002-2010)

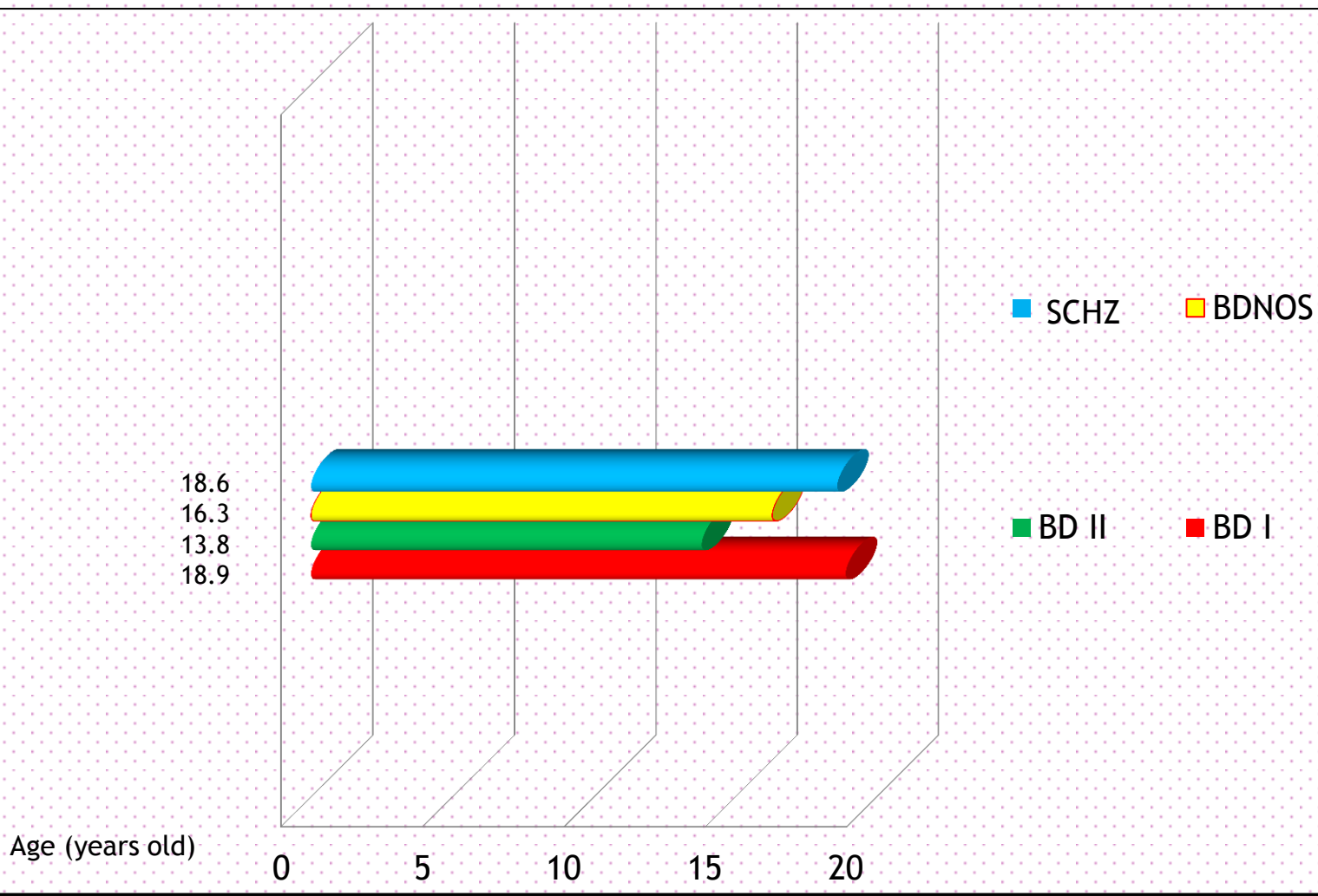
93 CASES NARROW PHENOTYPE- BY GENDER



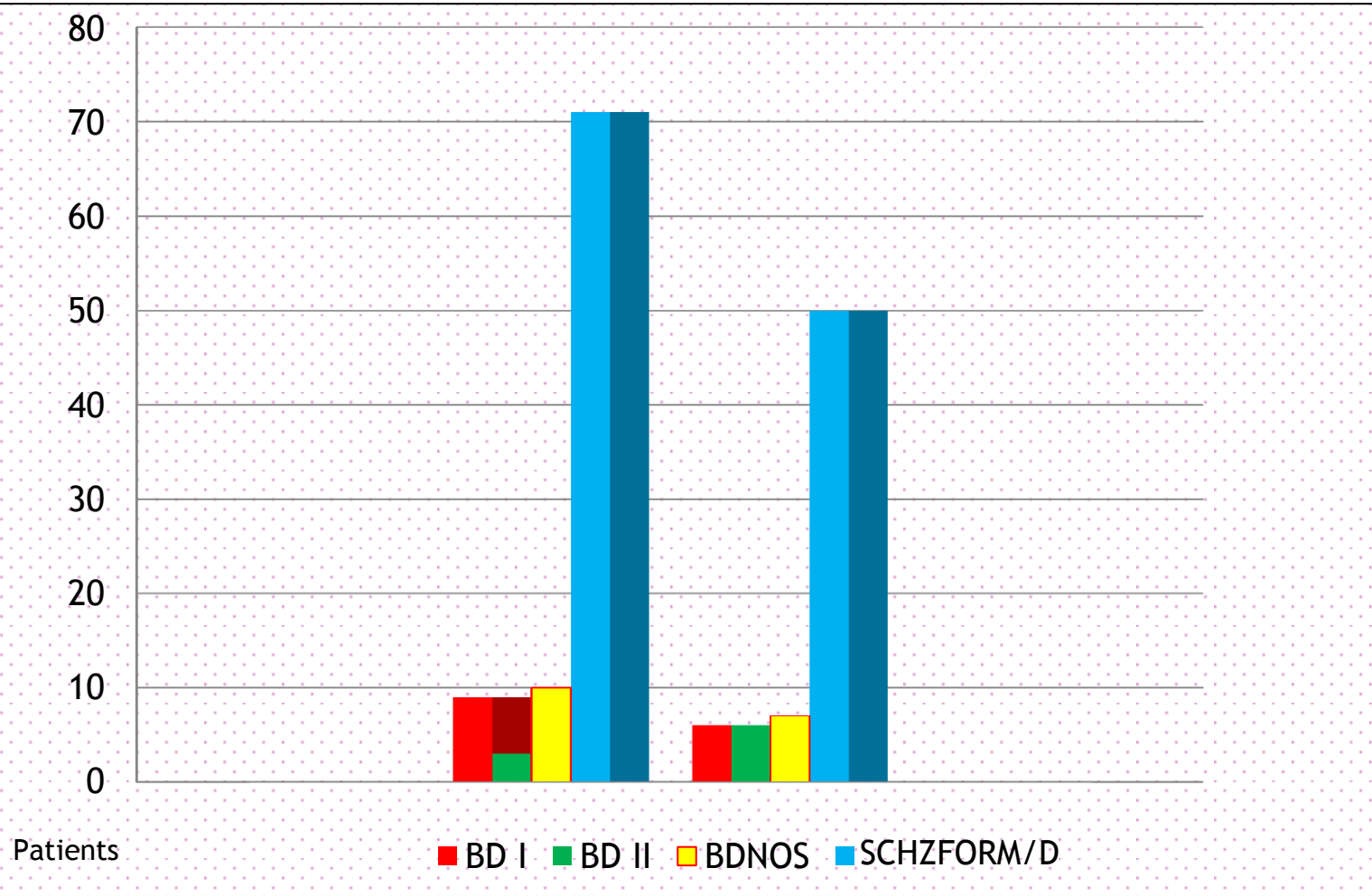
BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

N: 294 INPATIENTS (2002-2010)

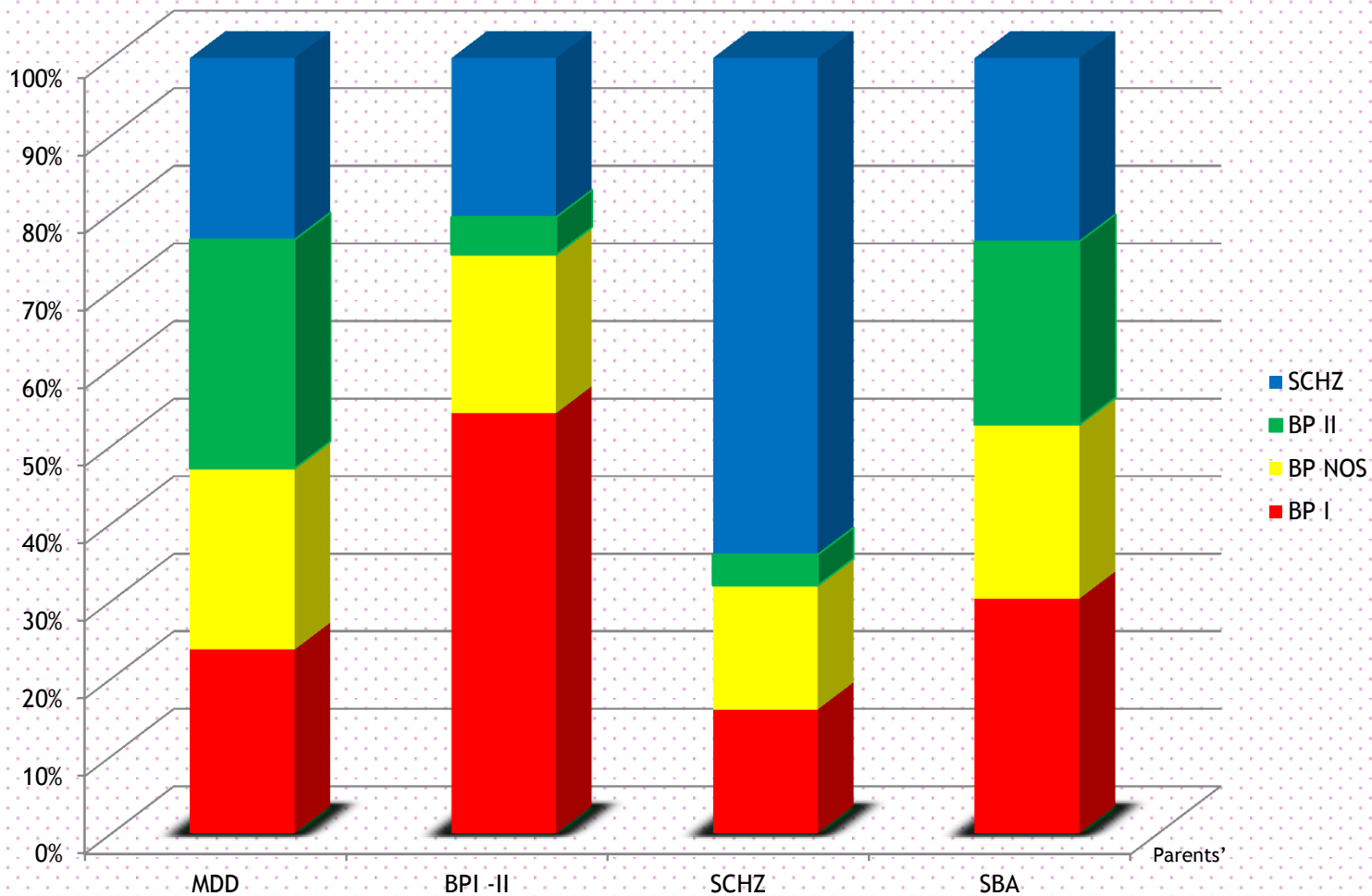
93 CASES NARROW PHENOTYPE-EARLY ONSET 14 YEARS OLD
MEAN AGE



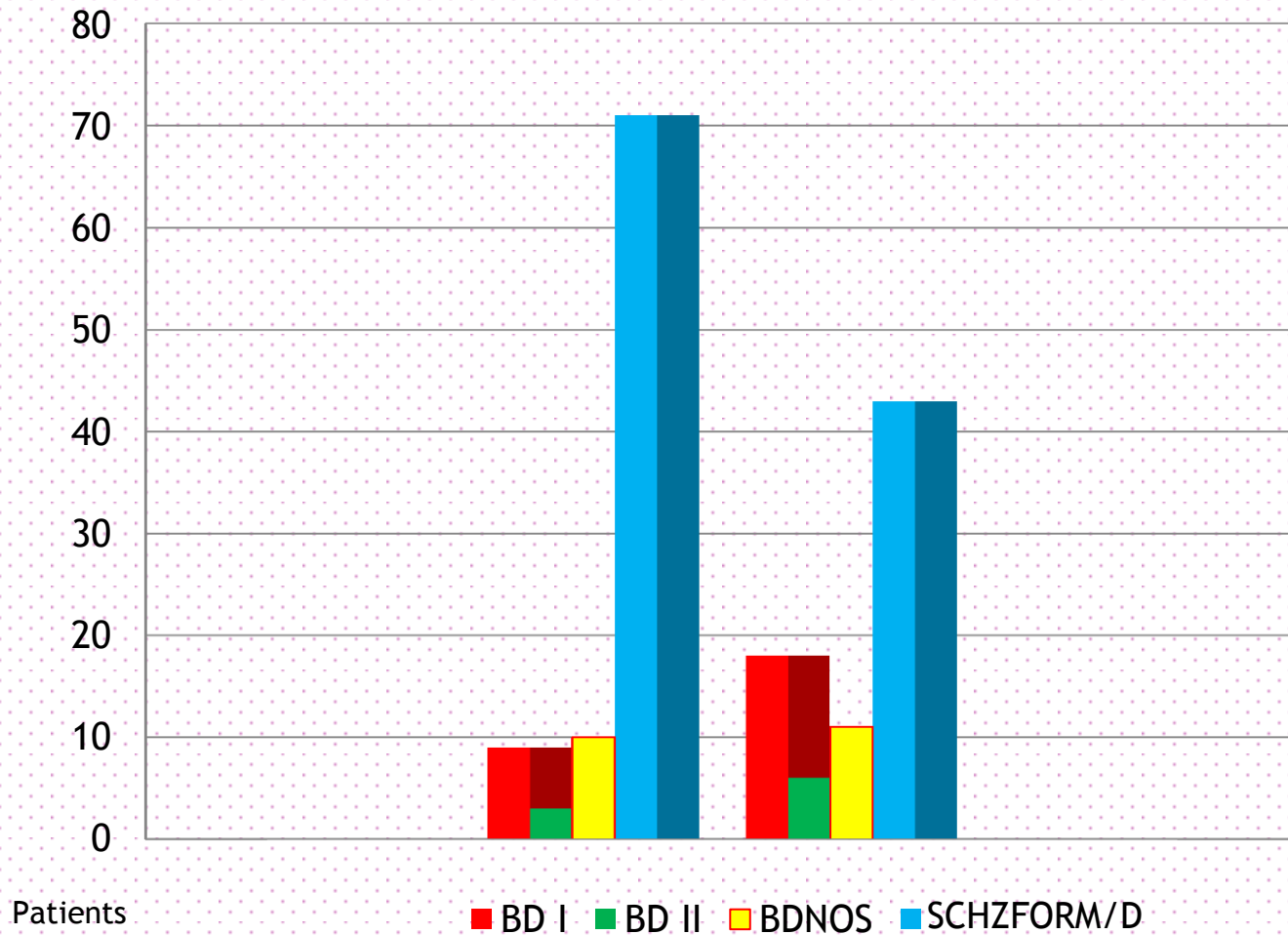
BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS
N: 294 INPATIENTS (2002-2010)
93 CASES NARROW PHENOTYPE - HISTORY OF TRAUMA



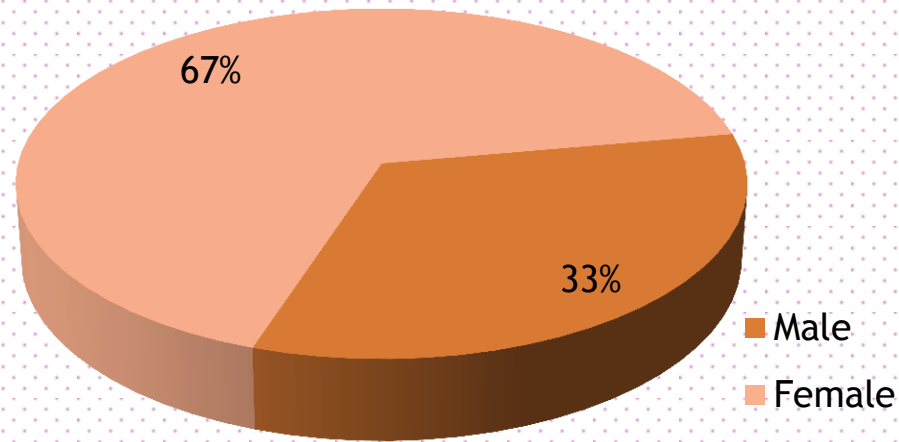
BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS
 N: 294 INPATIENTS (2002-2010)
 93 CASES NARROW PHENOTYPE -
 FAMILY HISTORY OF MENTAL ILLNESS



BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS
N: 294 INPATIENTS (2002-2010)
93 CASES NARROW PHENOTYPE -
FAMILY HISTORY OF MENTAL ILLNESS

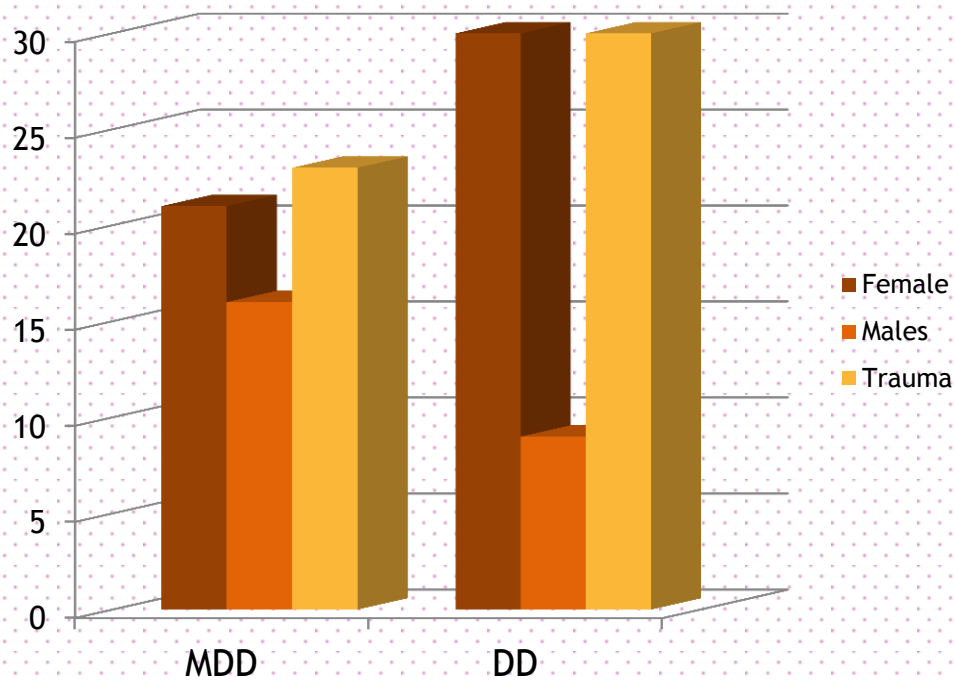


BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS
N: 294 INPATIENTS (2002-2010)
76 CASES DYSPHORIC DEPRESSION

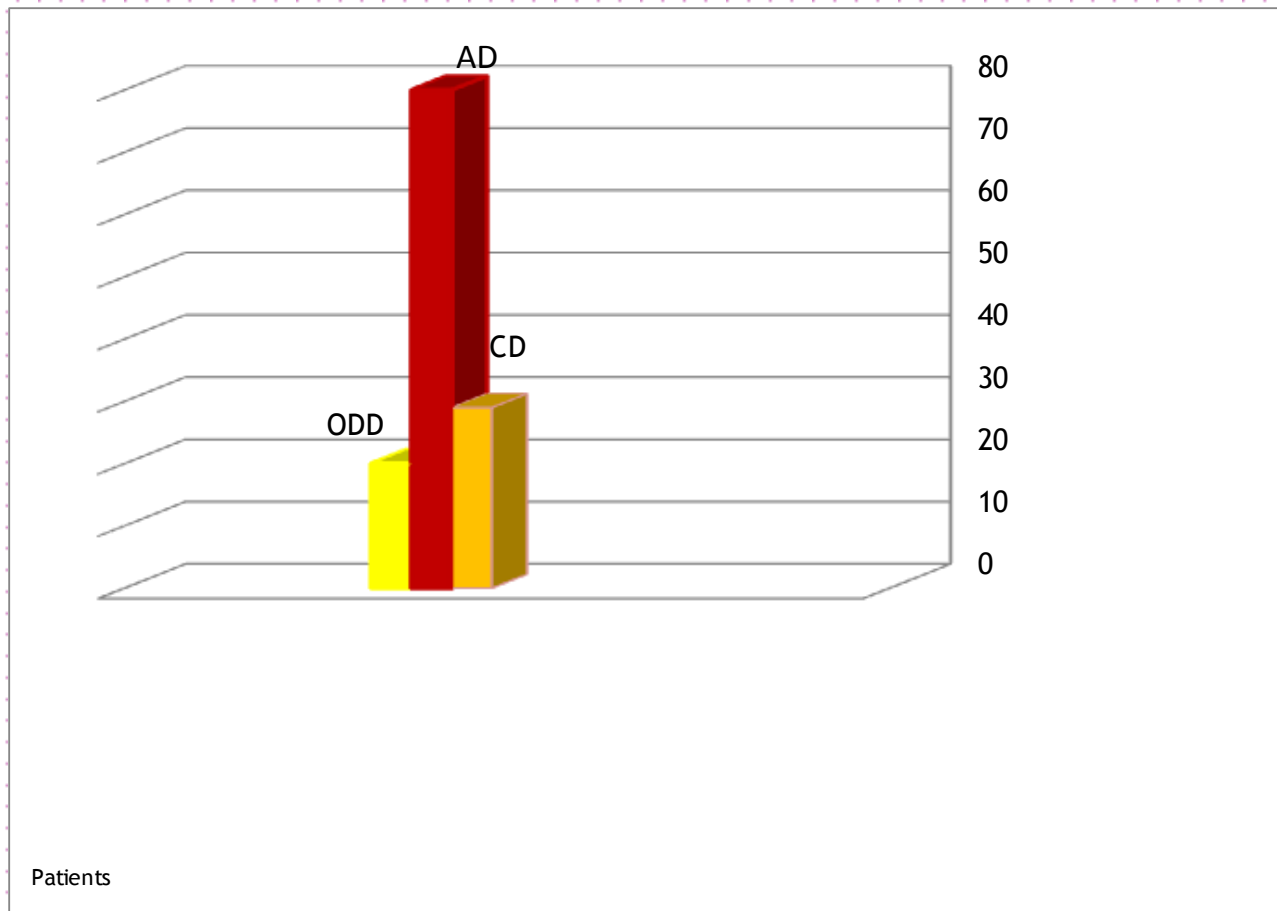


BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS

N: 294 INPATIENTS (2002-2010)
76 CASES DYSPHORIC DEPRESSION

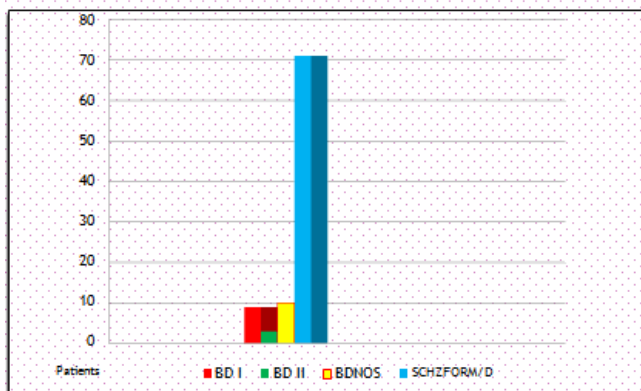


**BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS -
N: 294 INPATIENTS (2002-2010)
129 CASES BROAD PHENOTYPE**

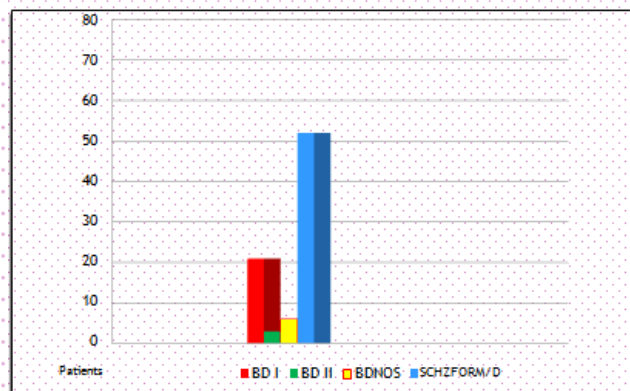


BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS N: 294 INPATIENTS (2002-2010)

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS
N: 294 INPATIENTS (2002-2010)
93 CASES NARROW PHENOTYPE-EARLY ONSET 14 YEARS OLD



BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS
N: 294 INPATIENTS (2002-2010)
93 CASES NARROW PHENOTYPE - 5 YEARS FOLLOW UP



BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS - DISCUSSION:

Our sample showed a heterogeneous group of inpatients children, adolescents and young adults with diverse mood disorders.

Narrow-phenotype BPD I and BPD II appeared in mid or late adolescents. Children and adolescents presented early onset of BPD II, BPD NOS and prodromal of first episode of psychosis. Whereas first episode of psychosis were observed in late adolescence.

Prevalence of male population for BPD I and schizophreniform disorder. History of previous major depressive episodes, strong family history of severe mental illnesses and trauma were found in our sample.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS - DISCUSSION:

Children with depression could manifest irritability with labile sadness, sudden onset of tearfulness or social withdrawal.

Children with mania, on the other hand, express irritability with labile sadness and labile euphoria(suddenly elated or silly state)

In paediatric mania irritability is **episodic** not chronic.

Episodic irritability in early adolescence was associated with BPD and anxiety disorders in late adolescence with BPD in adulthood.

Chronic irritability in early adolescence was associated with ODD and ADHD in late adolescence and MDD in adulthood.(8,9)

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS - DISCUSSION:

Early phases of bipolar disorders are difficult to diagnose and have specific treatment issues. The initial polarity of the illness is more commonly misdiagnosed.

There is an important delay before starting with appropriate therapy until mania is evident and required for the diagnosis.

In our sample after five years of follow up:

20 % with first psychotic features, became BPD I

2 % of the cases had ADHD

2 % Committed suicide

10 % cases exhibited disruptive behaviours

80 % of the cases had history of poly substance abuse before onset.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS - DISCUSSION:

Patients with broad phenotype were heterogeneous:

Dysphoric depression in adolescents with previous history of dysthymia had 60 % family history of mood disorders.

In our sample, we still did not see any switch to mania or hypomania in 5 years of follow-up.

Adjustment disorders were a complex group of 80 % young female adolescents with severe mood dysregulation, history of self harming behaviours and episodic irritability.

Finally, the controversial group of ODD/CD could be understood in the new DSM V as severe temper dysregulation. Clear prevalence in male population.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS - DISCUSSION:

Children and adolescents with either narrow or broad phenotype a had multiple disruptions in their development due to history of traumas living within vulnerable families with mood disorders, schizophrenia and substance abuse.

Therefore, family dynamics were dysfunctional and chaotic facing stress. We believe that the interplay between genetic loading as well as role modelling are important to consider in our cases.

Children with multiple unmet needs taking care of their parents. They lived abandonments due to parents' admissions or neglect because of parent's mental illnesses that perpetuate deception and irritability.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS - CONCLUSIONS

Bipolar disorder in children is still controversial. However, children with non episodically irritability, hyper arousal, who do not meet the narrow phenotype criteria should not be leave behind, because they are severely impaired as well.

Results highlight a spectrum of mood disorders within families with strong history of mental illnesses and trauma as important features in our debate.

BIPOLAR DISORDERS IN CHILDREN AND ADOLESCENTS - BIBLIOGRAPHY

1. DSM V: <http://www.dsm5.org/>
2. DSM IV TR- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. Washington, American Psychiatric Association, 1994. Hazell P.- Paediatric Bipolar Disorder: From the perspective of Australia and New Zealand- in Paediatric Bipolar Disorder: A Global Perspective- Editor: Rasim Somer Diler, Nova Science Publishers, Inc-2007, 33-35.
3. Liebenluft E et al.- Irritability in Paediatric Mania and other childhood psychopathology.-Ann.NY Acad.Sci 1008:201-218 (2003)
4. Liebenluft E et al.-Defining clinical phenotypes of juvenile mania- Am J Psychiatry 2003;160: 430-437.
5. Werry JS, McClellan JM- Predicting outcome in child and adolescent (early onset schizophrenia and bipolar disorders). *J.Am Acad Child Adolesc Psychiatry* 1992;31:147-150
6. Bashir M., Russell J. Johnson G- Bipolar affective disorder in adolescence: a 10 year study .*Aust.NZJ Psychiatry* 1987,21:36-43.
7. Biederman J, Faraone S and al. - Attention-deficit hyperactivity disorder and Juvenile mania: an overlooked comorbidity? *J Am Acad Child Adolesc Psychiatry* 1996; 35:997-1008.
8. Birmaher B, et al. - Clinical Course of Children and Adolescents With Bipolar Spectrum Disorders.*Arch.Gen. Psychiatry*. 2006;63:175-183.
9. Shaffer, D.- APA- Externalizing Disorders of childhood - Mexico City February 14-16,2007.Geller B. & Luby J- Child and Adolescent Bipolar Disorder: A Review of the Past 10 Years *J Am Acad Child Adolesc Psychiatry* 36:1168-1176, 1997
10. SCID-I & II- Screen patient questionnaire -First M. et al. American Psychiatric Press Inc. 1997
11. Mc Gorry P, Berk M, Hallam K, et al.- Early intervention in bipolar disorders: opportunities and pitfalls.- *MJA*, Vol. 187 Number 7- Oct 2007
12. Conus P., Berk M., Mc Gorry P.-Pharmacological treatment in the early phase of bipolar disorders.Australian and New Zealand Journal of Psychiatry Vol. 40-March 2008,pp199.

THE END