



Vall d'Hebron
Hospital

ADHD and bipolar disorders. Diagnosis and treatment outcomes among substance use disorders patients.

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INDEX

- Prevalence of ADHD in SUD patients
- Diagnostic difficulties of ADHD
- Bipolar disorder and comorbid ADHD
- Bipolar disorder and ADHD in SUD patients ?
- The role of ADHD on outcomes of the substance use disorders treatment

SUBSTANCE USE DISORDERS AND ADULT ADHD

- Psychiatry comorbidity is frequent in both disorders
- ↔ Substance-dependent patients show higher prevalence of ADHD
- ↔ ADHD patients present higher prevalence SUD

ADHD and quality of life

Qual Life Res

DOI 10.1007/s11136-017-1668-4

The role of dual diagnosis in health-related quality of life among treatment-seeking patients in Spain

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Elena Ros-Cucurull¹ · Marta Sorribes-Puertas¹ · Oriol Esculies² · Katia Bones-Rocha³ ·
Carlos Roncero¹

Model 1: Physical component summary sf- 36

| | Standardized Beta Coefficients | t | p |
|---------------------|--------------------------------------|-----|--------|
| Medical condition | 5.4 | 5.9 | 0.0001 |
| Age | 5.7 | 5.4 | 0.0001 |
| Sex (female) | 7.6 | 4.5 | 0.0001 |
| Depression disorder | 10.8 | 3.1 | 0.002 |
| Anxiety disorder | 13.0 | 2.6 | 0.01 |

Model 2: Mental component summary sf- 36

| | | | |
|-------------------------------|------------|------------|--------------|
| Depression disorder | 4.6 | 5.3 | 0.0001 |
| Any personality disorder | 4.9 | 4.9 | 0.0001 |
| Active consumption last month | 5.3 | 3.6 | 0.0001 |
| ADHD | 7.0 | 3.4 | 0.001 |
| Anxiety disorder | 8.1 | 3.0 | 0.003 |
| Suicide attempt | 10.9 | 2.2 | 0.028 |

Difficult for the Assessment of ADHD in addicted patients:

- Overlapping of symptoms
- Retrospective diagnosis
- No diagnostic criteria developed specifically for adults

Overdiagnosis

- To evaluate mental and physical comorbidity with similar symptoms to ADHD
- To analyze symptoms associated to intoxication and withdrawal symptoms
- Using screening tools without a further clinical diagnosis leads to overdiagnosis
- To evaluate possible medication misuse

Underdiagnosis

- To consider the frequent cognitive deficits and the biases associated with substance consumption
- Clinicians undervalue ADHD diagnosis

Instruments

Screening

- **Wender Utah Rating Scale (WURS):** Wender et al, 1993; Rodriguez-Jimenez et al, 2001).
- **Adult ADHD Self-Report Scale (ASRS-v1.1):** (Kessler, et al. 2005; Daigre et al, 2009; Pedrero Perez y Puerta Garcia, 2007).
- **CAARS - Conners' Adult ADHD Rating Scales** (Conners et al. La Malfa et al, 2008).

Interviews

- **Conners' Adult ADHD Diagnostic Interview for DSM-IV (CAADID):**
- *Psychiatry Research Interview for Substance and Mental Disorders (PRISM):*
- **DIVA** (Diagnostic Interview for adult ADHD) (Kooij, 2010).

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

| Patient Name | | Today's Date | | | | | |
|---|--|--------------|-------|--------|-----------|-------|------------|
| Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months. Please give this completed checklist to your healthcare professional to discuss during today's appointment. | | | Never | Rarely | Sometimes | Often | Very Often |
| 1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done? | | | | | | | |
| 2. How often do you have difficulty getting things in order when you have to do a task that requires organization? | | | | | | | |
| 3. How often do you have problems remembering appointments or obligations? | | | | | | | |
| 4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started? | | | | | | | |
| 5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time? | | | | | | | |
| 6. How often do you feel overly active and compelled to do things, like you were driven by a motor? | | | | | | | |
| Part A | | | | | | | |

WURS (Wender Utah Rating Scale for Attention-Deficit/Hyperactivity Disorder in Adults)

3.20. Wender-Utah Rating Scale (WURS)

| De pequeño yo era (o sentía) (o estaba): | Nada en absoluto (0) | Un poco (1) | Moderadamente (2) | Bastante (3) | Mucho (4) |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Activo, no paraba nunca | <input type="checkbox"/> |
| 2. Miedo de las cosas | <input type="checkbox"/> |
| 3. Problemas de concentración: me distraía con facilidad | <input type="checkbox"/> |
| 4. Ansioso, preocupado | <input type="checkbox"/> |
| 5. Nervioso, inquieto | <input type="checkbox"/> |
| 6. Poco atento, «en las nubes» | <input type="checkbox"/> |
| 7. Mucho temperamento saltaba con facilidad | <input type="checkbox"/> |
| 8. Tímido, sensible | <input type="checkbox"/> |
| 9. Explosiones de genio, rabietas | <input type="checkbox"/> |
| 10. Problemas para terminar las cosas que empezaba | <input type="checkbox"/> |
| 11. Bastardo, cabezota | <input type="checkbox"/> |
| 12. Triste, deprimido | <input type="checkbox"/> |
| 13. Imprudente, temerario: hacía travesuras | <input type="checkbox"/> |
| 14. Insatisfecho con la vida: no me gustaba hacer ninguna cosa | <input type="checkbox"/> |
| 15. Desobediente con mis padres rebeldía, contestón | <input type="checkbox"/> |
| 16. Mala opinión de mí mismo | <input type="checkbox"/> |
| 17. Irritable | <input type="checkbox"/> |
| 18. Extravertido, amigable: me gustaba la compañía de los demás | <input type="checkbox"/> |
| 19. Desordenado: me organizaba mal | <input type="checkbox"/> |
| 20. Cambios de humor frecuentes: alegre, triste... | <input type="checkbox"/> |
| 21. Entestado | <input type="checkbox"/> |
| 22. Popstar: tenía amigos | <input type="checkbox"/> |
| 23. Me organizaba bien: ordenado, limpio | <input type="checkbox"/> |
| 24. Impulsivo: hacía las cosas sin pensar | <input type="checkbox"/> |
| 25. Tendencia a ser tímido | <input type="checkbox"/> |
| 26. Sentimientos de culpa (por no dormir) | <input type="checkbox"/> |
| 27. Perdí el control de mí mismo | <input type="checkbox"/> |
| 28. Tendencia a ser o actuar irracionalmente | <input type="checkbox"/> |
| 29. Poco popular entre los demás chicos: los amigos no me querían mucho, no me llevaba bien con los demás chicos | <input type="checkbox"/> |
| 30. Mala coordinación: no hacía deporte | <input type="checkbox"/> |
| 31. Miedo a perder el control | <input type="checkbox"/> |

| De pequeño yo era (o sentía) (o estaba): | Nada en absoluto (0) | Un poco (1) | Moderadamente (2) | Bastante (3) | Mucho (4) |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 32. Buena coordinación: siempre me escogían de los primeros para el equipo | <input type="checkbox"/> |
| 33. Un chico (sólo si se es mujer) | <input type="checkbox"/> |
| 34. Me escapaba de casa | <input type="checkbox"/> |
| 35. Me metía en las peleas | <input type="checkbox"/> |
| 36. Molestaba a otros niños | <input type="checkbox"/> |
| 37. Líder, mandón | <input type="checkbox"/> |
| 38. Dificultad para despertarme | <input type="checkbox"/> |
| 39. Me dejaba llevar demasiado por los demás | <input type="checkbox"/> |
| 40. Dificultad para ponarme en el lugar de otros | <input type="checkbox"/> |
| 41. Problemas con las autoridades, en la escuela: visitas al jefe de estudios | <input type="checkbox"/> |
| 42. Problemas con la policía, condenas | <input type="checkbox"/> |
| Problemas médicos en la infancia: | | | | | |
| 43. Dolor de cabeza | <input type="checkbox"/> |
| 44. Dolor de estómago | <input type="checkbox"/> |
| 45. Estreñimiento | <input type="checkbox"/> |
| 46. Diarrea | <input type="checkbox"/> |
| 47. Alergia a alimentos | <input type="checkbox"/> |
| 48. Otras alergias | <input type="checkbox"/> |
| 49. Me orinaba en la cama | <input type="checkbox"/> |
| De niño, en la escuela yo era (o sentía): | | | | | |
| 50. En general un buen estudiante: aprendía rápido | <input type="checkbox"/> |
| 51. En general un mal estudiante: me costaba aprender | <input type="checkbox"/> |
| 52. Lento para aprender a leer | <input type="checkbox"/> |
| 53. Leta despacio | <input type="checkbox"/> |
| 54. Dislexia | <input type="checkbox"/> |
| 55. Problemas para escribir, deletrear | <input type="checkbox"/> |
| 56. Problemas con los números o las matemáticas | <input type="checkbox"/> |
| 57. Mala caligrafía | <input type="checkbox"/> |
| 58. Capaz de leer bastante bien, pero nunca me gustó hacerlo | <input type="checkbox"/> |
| 59. No alcancé todo mi potencial | <input type="checkbox"/> |
| 60. Repetí curso (¿Cuál? | <input type="checkbox"/> |
| 61. Expulsado del colegio (¿Qué curso? | <input type="checkbox"/> |

ASRS and WURS Co-Administration

Article

Adult ADHD Screening in Alcohol-Dependent Patients Using the Wender-Utah Rating Scale and the Adult ADHD Self-Report Scale

Constanza Daigre^{1,2,3}, Carlos Roncero^{1,2,3,4}, Laia Rodríguez-Cintas^{1,2,5},
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Journal of Attention Disorders
1-7

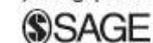
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Use of screening test

False positive results are very common among treatment-seeking substance use disorder patients

ADHD and bipolar disorders comorbidity

A decorative graphic consisting of a solid orange horizontal bar that transitions into a white background. On the right side, there are several horizontal lines of varying lengths and colors (orange and white) that create a layered, stepped effect.

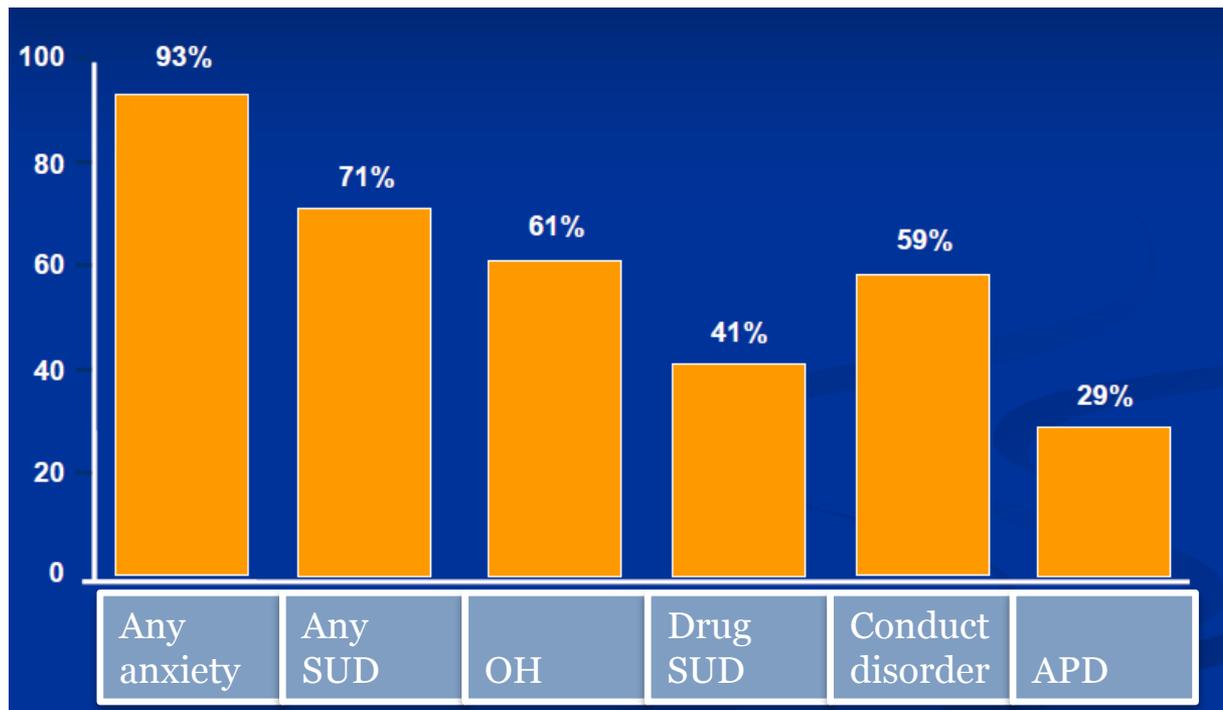
Comorbidity is the norm, not the exception

Psychological Medicine, 1997, 27, 1079-1089. Printed in the United Kingdom
© 1997 Cambridge University Press

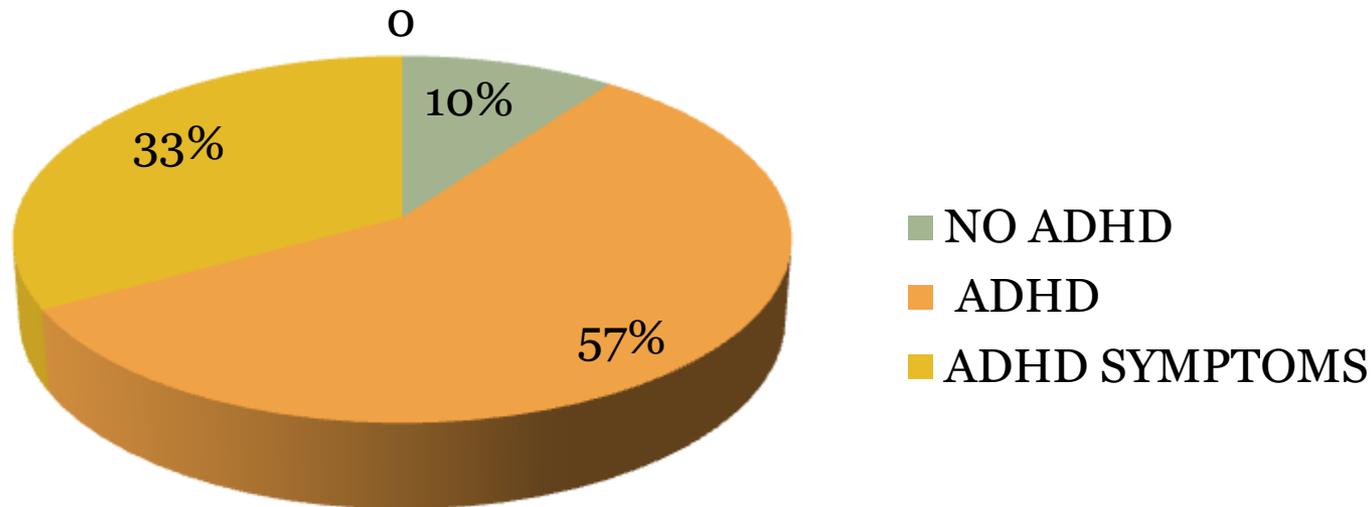
The epidemiology of DSM-III-R bipolar I disorder
in a general population survey

R. C. KESSLER,¹ D. R. RUBINOW, C. HOLMES, J. M. ABELSON AND S. ZHAO

Bipolar disorder comorbidity

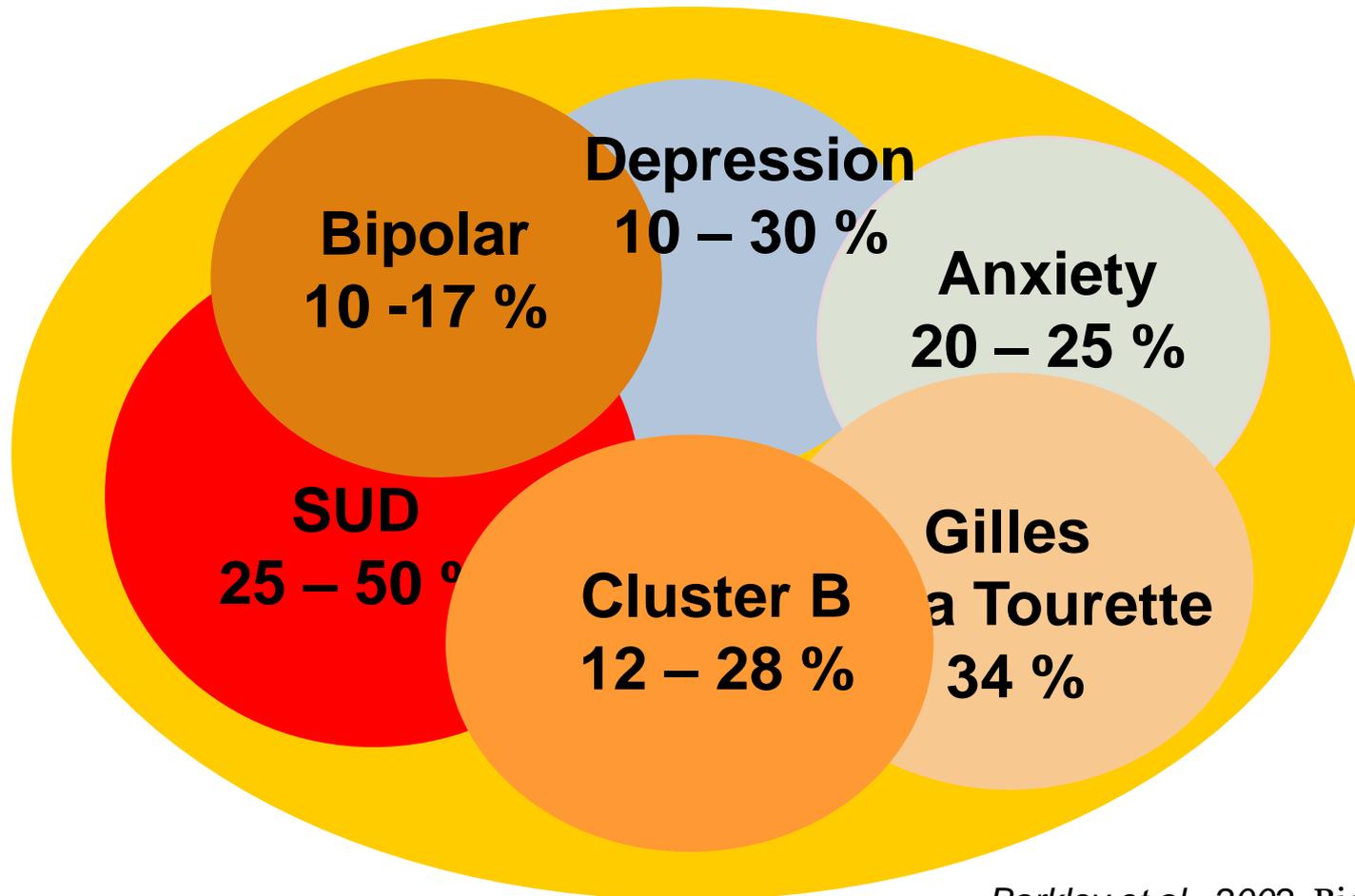


ADHD in bipolar samples



Borchardt and Bernstein 1995; Geller et al 2000;
West et al 1995; Wozniak et al 1995

ADHD comorbidity



Barkley et al., 2002, Biederman 1996)
17% bipolar (Carlson, 2000)

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Attention Deficit Hyperactivity Disorder in Cocaine-Dependent Adults: A Psychiatric Comorbidity Analysis

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Axis I mental disorders and personality disorders associated to ADHD

| | ADHD n=49 | No ADHD n=151 | | |
|----------------------------|--------------|------------------|------------|---------------|
| Sociodemographic variables | % | % | Statistic | p |
| Sex (man) | 95.90 | 84.1 | $X^2=4.56$ | 0.033 |
| Mean age | 30.16 ± 5.46 | 34.29 ± 7.65 | $z= 3.26$ | 0.001* |
| Single | 67.3 | 52.3 | $X^2=4.26$ | 0.118 |
| Married | 24.5 | 29.1 | | |
| Divorced | 8.2 | 18.5 | | |
| Primary education | | | $X^2=1.02$ | 0.313 |
| Secondary education | 61.2 | 53.0 | | |
| | 38.8 | 47.0 | | |
| Working | | | $X^2=2.87$ | 0.412 |
| Unemployed | 20.3 | 39.1 | | |
| Retired | 29.8 | 39.1 | | |
| Student | 16.7 | 13.2 | | |
| | 27.8 | 8.6 | | |

Axis I mental disorders and personality disorders associated to ADHD

| | ADHD n=49 | No ADHD n=151 | | |
|--|--------------|------------------|----------------------|---------------|
| Addiction-related variables | % | % | | p |
| Current substance use | | | | |
| Abstinence | 28 | 27.5 | | |
| Less than 1 month | 34.5 | 18 | | |
| More than 1 month | 37.5 | 54.5 | X ² =4.57 | 0.102 |
| | Medias | Medias | Z | p |
| Age at start of consumption | 18.51 ± 4.09 | 20.12 ± 5.12 | 2.22 | 0.026 |
| Age at onset of dependence | 20.71 ± 4.77 | 24.30 ± 6.81 | 3.40 | 0.001* |
| Amount consumed last 6 months (g weekly) | 6.50 ± 10.54 | 4.86 ± 7.54 | 2.23 | 0.026 |
| Amount consumed last month (g weekly) | 3.32 ± 5.71 | 2.74 ± 6.02 | 2.18 | 0.029 |

Axis I mental disorders and personality disorders associated to ADHD

| AXIS I | TDAH n=49 | | No TDAH n=151 | | X ² | OR | P |
|---|--------------|------|------------------|------|----------------|------|---------------|
| | n | % | n | % | | | |
| Depressive disorder | (24) | 49 | (47) | 31.1 | 5.15 | 2.87 | 0.023* |
| Anxiety disorder | (8) | 16.3 | (31) | 20.5 | 0.42 | | 0.519 |
| Psychotic disorder | (0) | 0 | (7) | 4.7 | | | NA |
| Eating behavior disorder | (1) | 2 | (7) | 4.7 | | | NA |
| Bipolar disorder | (1) | 3.3 | (5) | 2 | | | NA |
| Alcohol dependence | (17) | 34.7 | (45) | 29.8 | 0.41 | | 0.52 |
| Cannabis dependence | (22) | 44.9 | (37) | 24.5 | 7.40 | 2.51 | 0.007* |
| Opiate dependence | (2) | 4.1 | (13) | 8.6 | | | NA |
| Sedative dependence | (1) | 2.1 | (8) | 5.3 | | | NA |
| Smoking dependence | (35) | 71.4 | (111) | 73.5 | | | 1 |
| Mental disorders over the years (mean) | 1.28 ± 0.11 | | 0.84 ± 0.86 | | z = 2.06 | | 0.040 |
| Two or more dependences in the course of life (%) | (31) | 63.3 | (70) | 46.4 | 4.23 | 1.99 | 0.040 |

Axis I mental disorders and personality disorders associated to ADHD

| Personality disorder | ADHD n=49 | | No ADHD n=151 | | X ² | p |
|----------------------|--------------|-------------|------------------|-------------|----------------|----------------|
| | n | % | n | % | | |
| Avoidance | (3) | 6.1 | (8) | 5.3 | | NA |
| Obsessive-compulsive | (1) | 2.0 | (3) | 2.0 | | NA |
| Passive-aggressive | (2) | 4.1 | (3) | 2.0 | | NA |
| Schizoid | (6) | 12.2 | (7) | 4.6 | | NA |
| Paranoid | (1) | 2.0 | (3) | 2.0 | | NA |
| Dependence | (0) | 0 | (5) | 3.3 | | NA |
| Depressive | (1) | 2.0 | (1) | 0.7 | | NA |
| Schizotypal | (2) | 4.1 | (1) | 0.7 | | NA |
| Histrionic | (11) | 22.4 | (21) | 13.9 | 2.01 | 0.156 |
| Narcissistic | (16) | 32.7 | (25) | 16.6 | 5.88 | 0.015* |
| Borderline | (32) | 65.3 | (48) | 31.8 | 15.21 | 0.0001* |
| Antisocial | (26) | 53.1 | (55) | 36.4 | 4.25 | 0.039 |

Psychiatric comorbidity in treatment-seeking substance use disorder patients with and without attention deficit hyperactivity disorder: results of the IASP study

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N= 1205

10 COUNTRIES

More (hypo)manic episodes in ADHD patients

Bipolar disorder and ADHD in SUD patients prevalence

Table 2 Relationship of attention deficit hyperactivity disorder (ADHD) and comorbid psychiatric disorders in treatment-seeking substance use disorder (SUD) patients.

| <i>Comorbid disorder (1037/168)^a</i> | <i>ADHD⁻</i> | <i>ADHD⁺</i> | <i>OR^{bcd}</i> | <i>95% CI</i> | <i>σ^2_u (SE)^f</i> |
|---|-------------------------|-------------------------|-------------------------|---------------|---|
| Current depression(%) ^g | | | | | |
| Primary substance alcohol (607/58) ^a | 15.3 | 39.7 | 4.1*** | 2.1–7.8 | 0.63 (0.33) |
| Primary substance drugs (426/107) ^a | 22.8 | 24.3 | 1.2 | 0.7–2.2 | 0.44 (0.28) |
| Current (hypo)mania (%) | 4.1 | 14.9 | 4.3*** | 2.1–8.7 | 3.17 (1.58) |
| Antisocial personality disorder (%) | 17.0 | 51.8 | 2.8*** | 1.8–4.2 | 0.40 (0.21) |
| Borderline personality disorder(%) ^g | | | | | |
| Primary substance alcohol (607/58) ^a | 8.2 | 34.5 | 7.0*** | 3.1–15.6 | 1.55 (0.85) |
| Primary substance drugs (426/107) ^a | 16.7 | 29.0 | 3.4*** | 1.8–6.4 | 0.58 (0.37) |

OVERLAPING OF SIMPTOMS

| MANIA DSM | ADHD |
|--|-----------------------|
| Elevated, expansive, or irritable mood | NO |
| Inflated self-esteem or grandiosity | NO |
| Decreased need for sleep | Frequently associated |
| Increased talkativeness | YES |
| Flight of ideas | NO |
| Distractibility | YES |
| Hyperactivity | YES |
| Increase in risky behavior | Frequently associated |

OVERLAPING OF SIMPTOMS

| MANIA DSM | ADHD | SUD |
|--|-----------------------|---|
| Elevated, expansive, or irritable mood | NO |  |
| Inflated self-esteem or grandiosity | NO |  |
| Decreased need for sleep | Frequently associated |  |
| Increased talkativeness | YES |  |
| Flight of ideas | NO |  |
| Distractibility | YES |  |
| Hyperactivity | YES |  |
| Increase in risky behavior | Frequently associated |  |



Clinical features of ADHD and bipolar patients

- BD+ADHD group showed the same neurocognitive profile as pBD patients (n=229) (Torres I, 2017)
- TDAH has been associated to earlier onset of mania (Faraone, 1997)
- Childhood ADHD predicted a worse response to lithium (Strober et al 1998)
- To diagnose ADHD in bipolar adults is a challenge
- The diagnosis should be done while patients are euthymic

ADHD Comorbidity in Adults with Bipolar Disorder

Clinical and Diagnostic Implications of Lifetime Attention-Deficit/Hyperactivity Disorder Comorbidity in Adults with Bipolar Disorder: Data from the First 1000 STEP-BD Participants

Andrew A. Nierenberg, Sachiko Miyahara, Tom Spencer, Stephen R. Wisniewski, Michael W. Otto, Naomi Simon, Mark H. Pollack, Michael J. Ostacher, Leslie Yan, Rebecca Siegel, and Gary S. Sachs, for the STEP-BD Investigators

ADHD Comorbidity in Adults with Bipolar Disorder

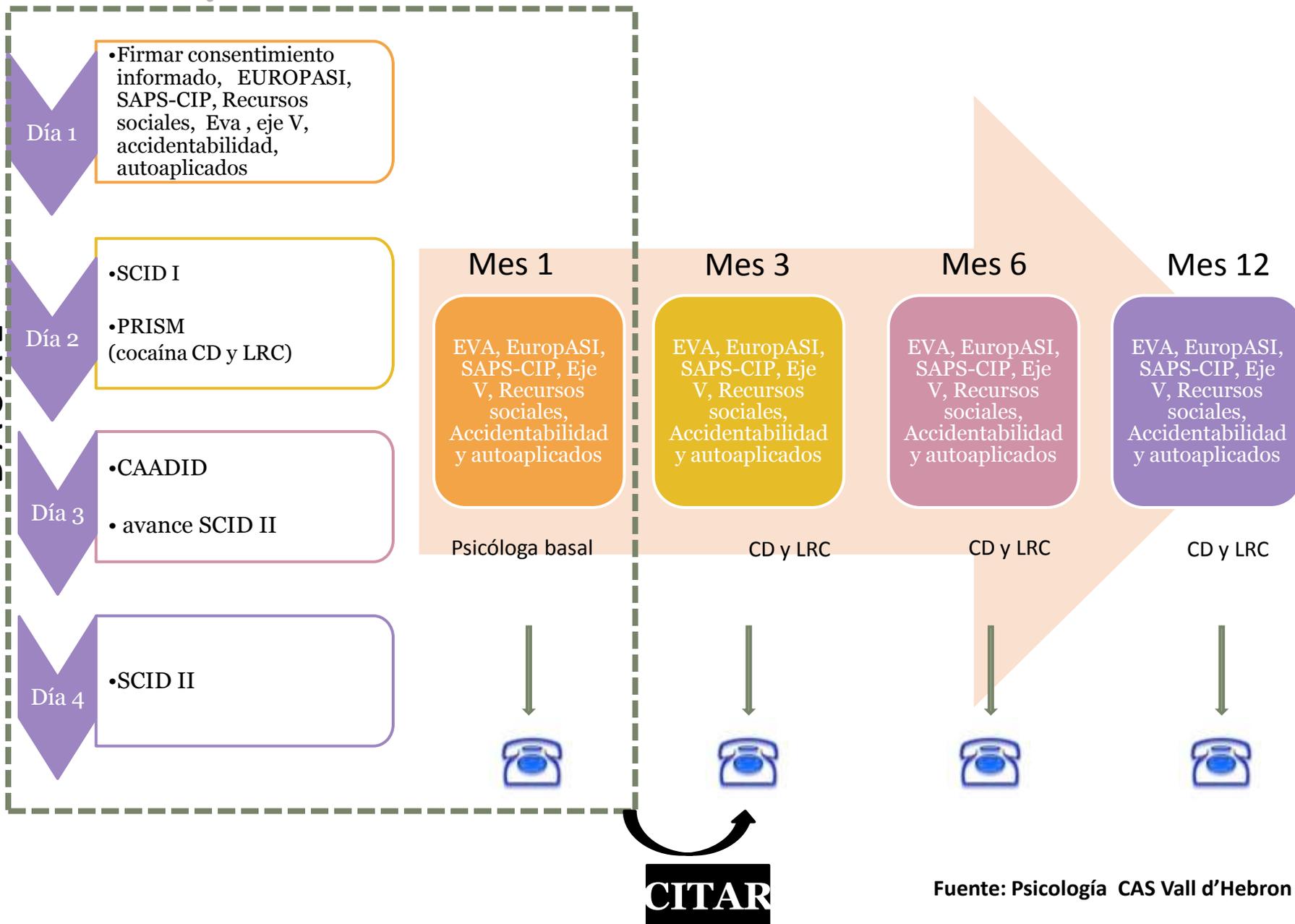
- ADHD comorbidity had shorter periods of wellness and were more frequently depressed
- Greater number of other comorbid psychiatric diagnoses
 - Several anxiety disorders
 - Alcohol and substance abuse and dependence
- Worse course of bipolar disorder and greater burden of other psychiatric comorbid conditions (Nierenberg, 2005).

ADHD treatment outcomes among substance use disorders patients

- n= 101
- Cocaine dependent patient (active consumption)
- Comprehensive psychological assessment
- 1 year of follow-up

PROTOCOLO DE SEGUIMIENTO - PSICOLOGIA 2014 -

BASAL



Results

| | Yes | Mean \pm SE | No | Mean \pm SE | p |
|------------------------------------|------|-----------------|------|-----------------|-------|
| Craving VAE (≤ 3 vs > 3) | 50,8 | 9,22 \pm 0,85 | 49,2 | 7,40 \pm 0,92 | 0,026 |
| ADHD | 22,4 | 5,40 \pm 1,42 | 77,6 | 9,03 \pm 0,66 | 0,044 |
| Antisocial Personality disorder | 24,5 | 5,09 \pm 1,04 | 75,5 | 9,87 \pm 0,74 | 0,004 |

Conclusions

- Comorbidity is the norm, not the exception
- ADHD patients have greatest difficulties in achieving the abstinence
- To diagnose ADHD and bipolar disorders in addicted patients is a challenge
- ADHD + bipolar disorder: Worse course of bipolar disorder and greater burden of other psychiatric comorbid conditions
- In SUD we need more studies about ADHD + bipolar disorder



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ADHD Diagnosis and treatment outcomes among substance use disorders patients

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