

History of illness prior to a diagnosis of Bipolar Disorder or Schizoaffective Disorder

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Illness time-course in an ideal world

- Early detection of illness
 - Treatment commences when symptoms first appear
- Accurate diagnosis
- Algorithm appropriate treatments initiated

Early detection and treatment

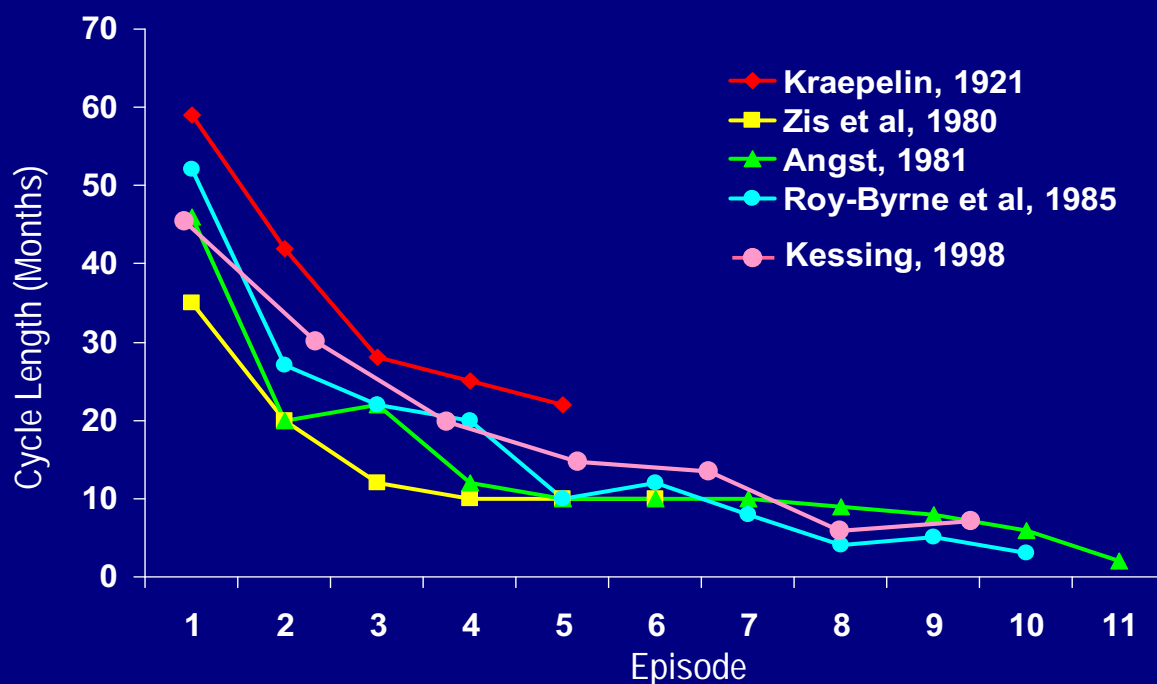
- Early detection and treatment may prevent a more severe and chronic course of illness
 - A long interval between the onset of bipolar illness and commencement of lithium prophylaxis is associated with poor prognosis [1]
 - Lithium response is greater in individuals who have had fewer episodes [2]
 - Psychotherapy may be more effective in individuals earlier in their illness course [3]

1. Franchini et al. (1999) *Eur Arch Psychiatry Clin Neurosci* 249:227-230.

2. Swann et al. (1999) *Am J Psychiatry* 156:1264-1266.

3. Scott et al. (2006) *Br J Psychiatry* 188:313-320.

Relationship Between Cycle Length and Number of Episodes



Zis, *Psychopharmacol Bull.* 1980 Jan;16(1):47-9; Angst, *Schizophr Bull.* 1980;6(4):579-85; Roy-Byrne, *Acta Psychiatr Scand Suppl.* 1985;317:1-34. Kessing, *J Affect Disord.* 1998 May;49(2):101-8; Kraepelin, E., 1921. *Manic Depressive Insanity and Paranoia.* Reprinted 1976, Ayer Company, Salem, NH.

Early detection and treatment

- Various factors combine to prevent early treatment
 - Mental health services may have a triage threshold that excludes milder and earlier presentations of illness, and often focus on crisis response rather than long term illness management [1]
 - Pathways to care vary considerably between nations and can even vary at a local level. However, many of the problems of misdiagnosis, underdiagnosis and inadequate treatment of bipolar disorder reoccur across the various service models [1]

1. Bhugra D and Flick GR (2005) *Bipolar Disord* 7:236-245.

Early detection and treatment

- Accurate diagnosis for bipolar and schizoaffective disorders is difficult early in these illnesses
 - Patients with bipolar disorder often first present during a depressive episode and may be diagnosed with MDD and treated with antidepressant monotherapy
 - Patients with schizoaffective disorder may first present during a mood or psychotic episode and the other symptoms of their illness may not be recognised

Bipolar disorder: unrecognised and underdiagnosed

MDQ positive rates (US population)

Prevalence of bipolar I and II disorder^a	3.4%^b
Correctly diagnosed by a research doctor as having bipolar disorder	20%
Incorrectly diagnosed as unipolar depression	31%
Unrecognised and undiagnosed	49%

^aWeighted to match national demographics

^bWhen adjusted for frequency of bipolar disorder in non-responders, the prevalence rate increased to 3.7%

MDQ = Mood disorder questionnaire

Hirschfeld et al (2003) J Clin Psych 64:161-174

Geelong region

- **Diagnosis using the SCID of 1066 women recruited randomly from the electoral role**
 - 9 women were found to have bipolar I disorder, of which 6 had a previous diagnosis of bipolar disorder, 2 had a previous diagnosis of MDD or “depression” and 1 had no previous diagnosis
 - 11 women were found to have bipolar II disorder, of which 4 had a previous diagnosis of bipolar disorder, 2 had a previous diagnosis of MDD or “depression”, 2 had a previous diagnosis of post-natal depression and 3 had no previous diagnosis
 - 3 women were found to have bipolar disorder NOS, of which 2 had a previous diagnosis of “depression” and 1 had no previous diagnosis

(Unpublished data)

Bipolar Comprehensive Outcomes Study

- 2-year observational study of 240 participants
- 218 participants answered the questionnaire
- 163 bipolar disorder, 55 schizoaffective disorder, 125 female, 93 male, age 41.8 ± 12.7 years.
- 2 sites – Alfred Psychiatry Research Centre, Melbourne and Barwon Psychiatric Research Unit, Geelong
- Data collected by face-to-face interview at a series of 9 interviews by trained clinical staff

Bipolar Comprehensive Outcomes Study

- **History of illness questionnaire administered by study clinicians to BCOS participants at interview**
 - History of illness prior to enrolling in BCOS
- **10 questions**
 - Q.1-8 probed key events in the progression of illness
 - Q.9 previous diagnoses
 - Q.10 previous medications

INV #: _____
 PATIENT #: _____

TIME COURSE UNTIL DIAGNOSIS AND TREATMENT FOR BIPOLAR DISORDER

(Questions are to be filled in by the interviewer. Try and obtain answers for age in year and months so that the interval between events is in months. If unsure, approximate answers are better than blank answers.)

Please answer the following questions as best you can.

1. At what age did you experience any symptoms of mental illness?	Years _____ Months _____
2. At what age did you first present for medical treatment of your mental illness?	Years _____ Months _____
3. At what age did you experience any symptoms of mania?	Years _____ Months _____
4. At what age did you experience a full episode of mania?	Years _____ Months _____
5. At what age did you experience any symptoms of depression?	Years _____ Months _____
6. At what age did you experience a full episode of depression?	Years _____ Months _____
7. At what age did you start to experience any mood swings?	Years _____ Months _____
8. At what age did you first receive a diagnosis of bipolar disorder or schizoaffective disorder?	Years _____ Months _____

9. Prior to being diagnosed as having bipolar disorder or schizoaffective disorder, had you ever had a different diagnosis (or diagnoses)?

Yes No

↓ If yes, please list.

Diagnosis	From age	To age
	Years _____ Months _____	Years _____ Months _____
	Years _____ Months _____	Years _____ Months _____
	Years _____ Months _____	Years _____ Months _____

If there are more than 3 diagnoses, please use the additional page provided.

INV #: _____
 PATIENT #: _____

10. Prior to being diagnosed as having bipolar disorder or schizoaffective disorder, had you been treated with psychiatric medications?

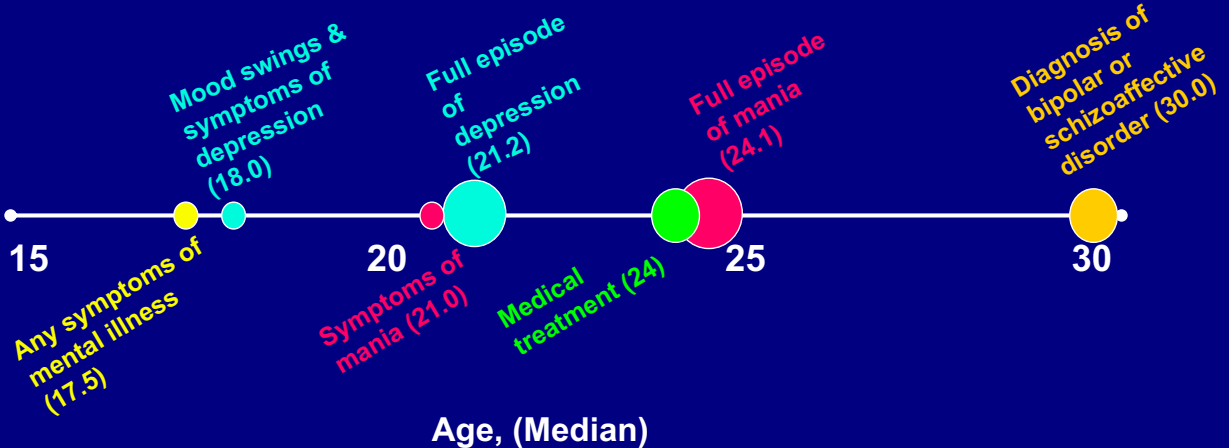
Yes No

↓ If yes, please list. Record the exact name of the medication if known, or the name of drug class e.g., antidepressant.

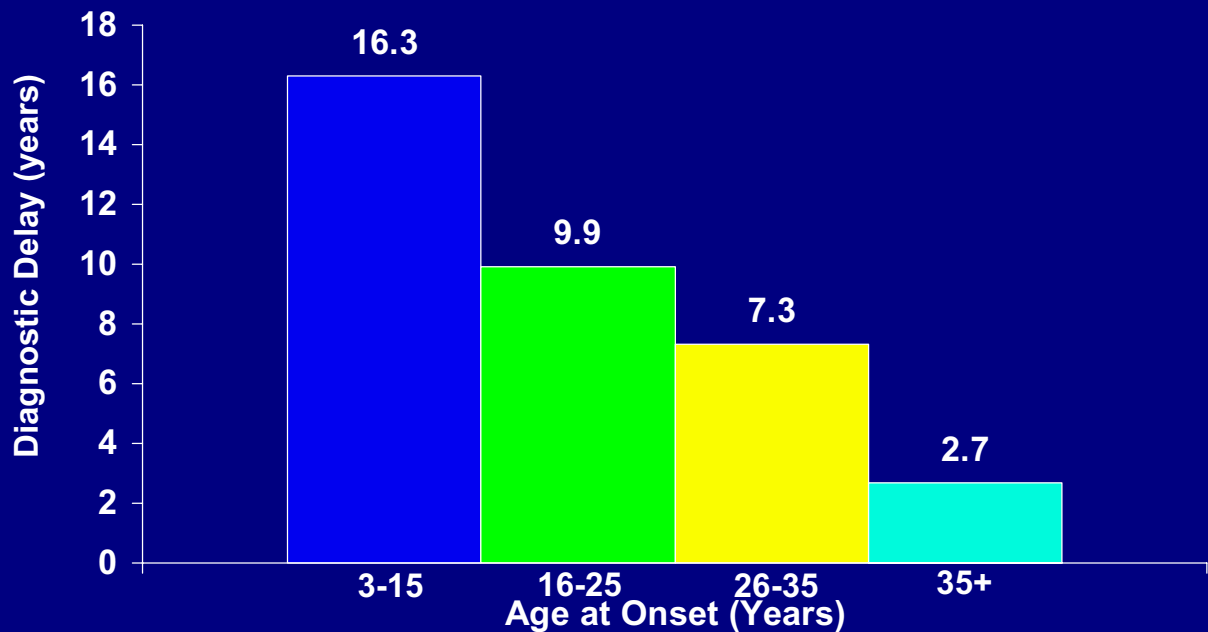
Medication	From age	To age	Were you (Please circle)	Was it useful? (Please circle)
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No
	Years _____ Months _____	Years _____ Months _____	Compliant Mostly compliant Mostly non-compliant	Yes No

If there are more than 9 medications, please use the additional page provided.

Onset of illness timeline

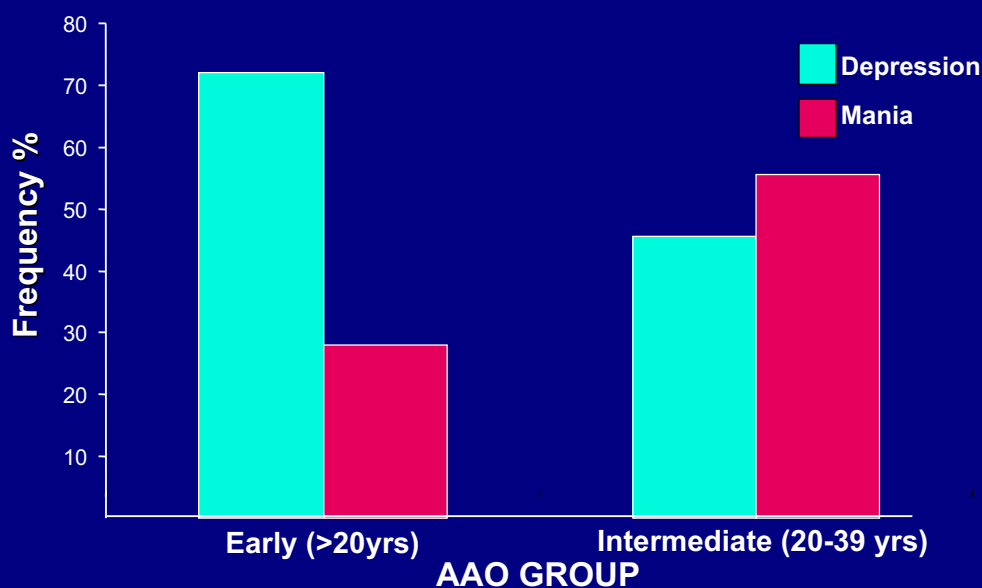


Delay from first experiencing any symptoms of mental illness to diagnosis



Berk et al. (2007) *J Affect Disord* 103: 181-186

Age of onset predicts initial polarity



- Early AAO – More likely to experience depressive first episode (72%)
- Intermediate AAO – More likely to experience manic first episode (55.5%)

Biffin et al, submitted to *Bipolar Disorders*

Diagnoses prior to commencing the BCOS study

Prior diagnosis	Number of participants	Duration diagnosis was retained (years \pm SD)
Depression	58	7.6 \pm 8.7
Schizophrenia	27	8.6 \pm 6.5
Bipolar disorder	13	5.2 \pm 4.6
Postnatal depression or psychosis	12	3.2 \pm 4.1
Schizoaffective disorder	7	4.5 \pm 3.0
Borderline personality disorder	6	5.8 \pm 5.6

Treatment exposures prior to final diagnosis (Exposure reported by 121 of 218 BCOS participants)

	Number of exposures	Duration diagnosis was retained (years \pm SD)
SSRIs	50	1.8 \pm 2.6
TCAAs	25	2.1 \pm 2.8
MAOIs	9	1.2 \pm 0.9
Other ADs	13	1.0 \pm 0.9
AD (not known)	20	5.7 \pm 9.0
Typical antipsychotic	73	3.2 \pm 3.7
Atypical antipsychotic	22	1.5 \pm 2.0
Antipsychotic (NK)	5	0.6 \pm 0.4
Benzotropine	36	4.6 \pm 7.4
Benzodiazepines	24	2.3 \pm 2.7
Mood stabilisers	17	6.0 \pm 9.3
Methylphenidate	1	0.8
ECT	4	1.8 \pm 2.2

Medication	Adherent	Mostly adherent	Mostly non-adherent	Medication was useful
All classes	65%	21.8%	13.3%	
Benzodiazepines	88.5%	11.5%	0%	73%
Benzotropine	81.8%	9.1%	9.1%	64%
Mood stabilisers	66.7%	13.3%	20%	38%
Antipsychotics	61.3%	24.3%	14.4%	46%
Antidepressants	61.1%	23.8%	15.1%	MAOIs 75% TCAs 32% SSRIs 42% AD (NK) 29%

Limitations

- **Data was collected retrospectively**
- **Data was not checked against other sources (e.g. patient records)**
- **The findings demonstrate a considerable delay between onset and diagnosis in the past, not necessarily in current practice**
- **Issues of diagnostic stability versus misdiagnosis are not explored**

Key findings

- **Large delays exist between onset of illness, seeking medical treatment and final diagnosis**
 - Longer delays for earlier age at onset
- **Participants have had many previous diagnoses and medications**
 - Predominantly compliant with treatment

Conclusion

- **Significant improvements in the course and outcome of bipolar and schizoaffective disorders can be made by**
 - Encouraging people with symptoms to seek help earlier
 - Earlier accurate diagnosis and algorithm appropriate treatment by clinicians

BCOS study team

- The Alfred Psychiatry Research Centre (APRC)
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- Eli Lilly Australia
Bill Montgomery, Katarina Kelin, Sibyl Masterman
- University of Western Sydney & Mental Health Association, NSW
Meg Smith
- Intercontinental Information Sciences (ICIS)
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