

Online data supplement to: Palmier-Claus et al. Relationship between childhood adversity and bipolar disorder: systematic review and meta-analysis. *Br J Psychiatry* DOI: 10.1192/bjp.bp.115.179655

Table DS1 Characteristics of studies included in the main analysis

Authors	Country	Bipolar sample characteristics	Diagnostic system	Sample sizes (n)					Measure	
				Total	BD	NC	MD	SCZ	Adversity (type)	Diagnosis
<u>Case control studies</u>										
Agid et al., 1999 (28)	Israel	Bipolar patients	DSM-III-R	158	79	79	79	76	University Database Questionnaires (PL)	SCID
Furukawa et al., 1999 (29)	Japan	Bipolar patients	DSM-III-R	195	73	122	570		PISA or TOSHI (PL)	PISA
Rucklidge et al., 2006 (30)	New Zealand	Bipolar NOS, I & II adolescent outpatients	DSM-IV-TR	63	24	39			CBC, KSADS-PL & WASHU-K-SADS (SA, PA, N, EA)	KSADS

Grandin et al., 2007 (31)	USA	Bipolar NOS, I & cyclothymic patients	DSM-IV	310	155	155		Childrens Life Events Scale (maltreatment)	General Behaviour Inventory & SADS-L
Savitz et al., 2008 (32)	South Africa	Bipolar I & II patients	DSM-IV	133	68	65	44 / 33*	CTQ (SA, PA, EA, EN, PN)	SCID
Etain et al., 2010 (33)	France	Bipolar I & II patients	DSM-IV	300	206	94		CTQ (SA, PA, EA, EN, PN)	DIGS
Horesh & Iancu, 2010 (34)	Israel	Bipolar outpatients	DSM-IV	90	30	60		Child Life Events List (PL)	SCID
Fowke et al., 2012 (23)	England	Bipolar patients	ICD-10	70	35	35		CTQ (SA, PA, EA, EN, PN)	From service
Konradt et al., 2013 (35)	Brazil	Bipolar I & II patients	DSM-IV	149	54	95	82	CTQ (SA, PA, EA, EN, PN)	MINI & SCID
Aas et al., 2014 (36)	Norway	Bipolar NOS, I & II patients	DSM-IV	66	42	14		CTQ (SA, PA, EA, EN, PN)	SCID

Chen et al., 2014 (37)	Taiwan	Bipolar I & II	DSM-IV	531	329	202		CIDI (PA)	CIDI
Watson et al., 2014 (38)	UK & New Zealand	Bipolar I & II outpatients	DSM-IV	115	60	55		CTQ (SA, PA, EA, EN, PN)	SCID
Janiri et al., 2015 (39)	Italy	Bipolar I & II outpatients	DSM-III-R	207	104	103		CTQ (SA, PA, EA, EN, PN)	SCID
<u>Epidemiological studies</u>									
Molnar et al., 2001 (25)	USA	Bipolar disorder	DSM-III-R	5866				Items from the CTS (SA)	CIDI
Laursen et al., 2007 (22)	Denmark	Bipolar disorder	ICD-8 & ICD-10	2.1M	4490		31752 13297	Cause of Death Register (PL)	Danish Psychiatric Central Register
Scott et al., 2010 (18)	New Zealand	Bipolar disorder	DSM-IV	2144				Child protection agency status (maltreatment)	CIDI
Stikkelbroek et al., 2012 (21)	Netherlands	Bipolar disorder	DSM-III-R	7076				Item on parental death (PL)	CIDI

Afifi et al., 2014 (24)	Canada	Bipolar disorder	DSM-IV	23395			Items from CEVQ (SA, PA)	CIDI
Gilman et al., 2014 (26)	USA	Bipolar I disorder	DSM-IV	33379			Items from CTQ & CTS (maltreatment, SA)	AUDADIS-IV
<u>Studies included in comparisons with major depression and schizophrenia (stage four of analysis)</u>								
Alnaes & Torgersen, 1993 (40)	Norway	Bipolar and cyclothymic patients	DSM-III	156	59	97	Anamnestic interview (PL)	SCID
Darvez-Bornoz et al., 1995 (41)	France	Bipolar patients	DSM-III-R	89	25	64	Interview (SA)	Psychiatrist rated against criteria
Hlastala & McClellan, 2005 (42)	USA	Bipolar I	DSM-IV-TR	49	22	27	PTSD module of SCID (SA, PA, N)	SCID
Hyun et al., 2000 (43)	USA	Bipolar patients	DSM-IV	333	142	191	Semi-structured interview (SA, PA)	Diagnostic interview
Watson et al., 2007 (44)	UK	Bipolar patients	DSM-IV	40	30	10	CTQ (SA, PA, EA, EN, PN)	SCID

Angst et al., 2011 (45)	Switzerland	Bipolar disorder	Broad DSM-IV	287	104	183	Unclear (SA)	SCL-90-R
Alvarez et al., 2011 (46)	Spain	Bipolar patients	DSM-IV	92	40	52	Items from TLDEQ (SA, PA)	Unclear
Parker et al., 2013 (47)	Australia	Bipolar I & II patients	DSM-IV	352	138	214	Unclear (SA, PA)	MINI
Perna et al., 2014 (48)	England	Bipolar I & II patients	DSM-IV	74	47	27	CTQ (SA, PA, EA, EN, PN)	Clinical interview (unspecified)

Key: BD, Bipolar disorder; NC, Non-clinical controls; MD, unipolar or major depression; SCZ, schizophrenia; DSM, Diagnostic and Statistical Manual; PA, physical abuse; SA, sexual abuse; N, neglect; EN, emotional neglect; PN, physical neglect; EA, emotional abuse; PL, parental loss; ICD, International Classification of Diseases; SCID, Structured Clinical Interview for DSM Disorders; PISA, Psychiatric Initial Screening for Affective Disorders; TOSHI, Time-Ordered Stress and Health Interview; CBC, Child Behaviour Checklist; KSADS-PL, Kiddie-Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version; WASHU-K-SADS, Washington University in St. Louis Kiddie Schedule for Affective Disorders and Schizophrenia; SADS-L, Schedule for Affective Disorders - Lifetime Diagnostic Interview (SADS-L); CTQ, Childhood Trauma Questionnaire; DIGS, Diagnostic Interview for Genetic Studies; MINI, Mini International Neuropsychiatric Interview; CIDI, Composite International Diagnostic Interview; CTS, Conflict Tactics Scales; CEVQ, Childhood Experiences of Violence Questionnaire; AUDADIS-IV, Alcohol Use Disorder and Associated Disabilities Interview Schedule-IV; PTSD, post-traumatic stress disorder; SCL, symptom checklist; TLDEQ, Traumatic Life Events and Distressing Event Questionnaires.

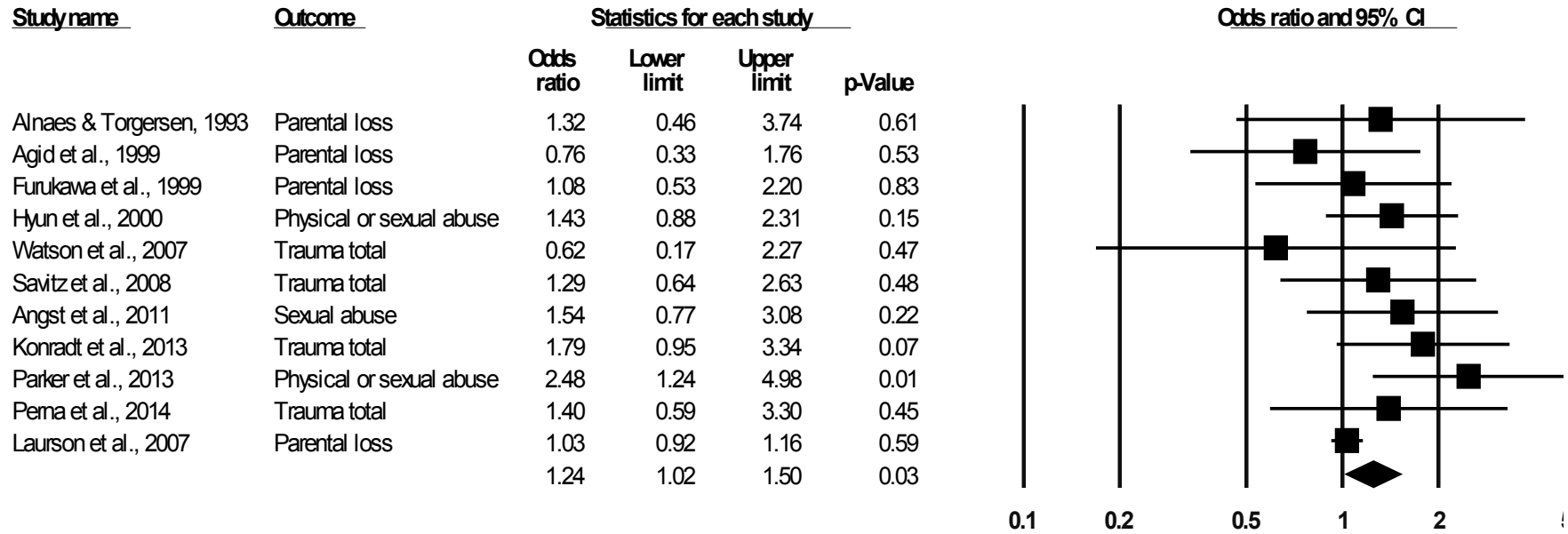


Fig. DS1 Forest plot for the bipolar disorder compared to unipolar depression analysis.

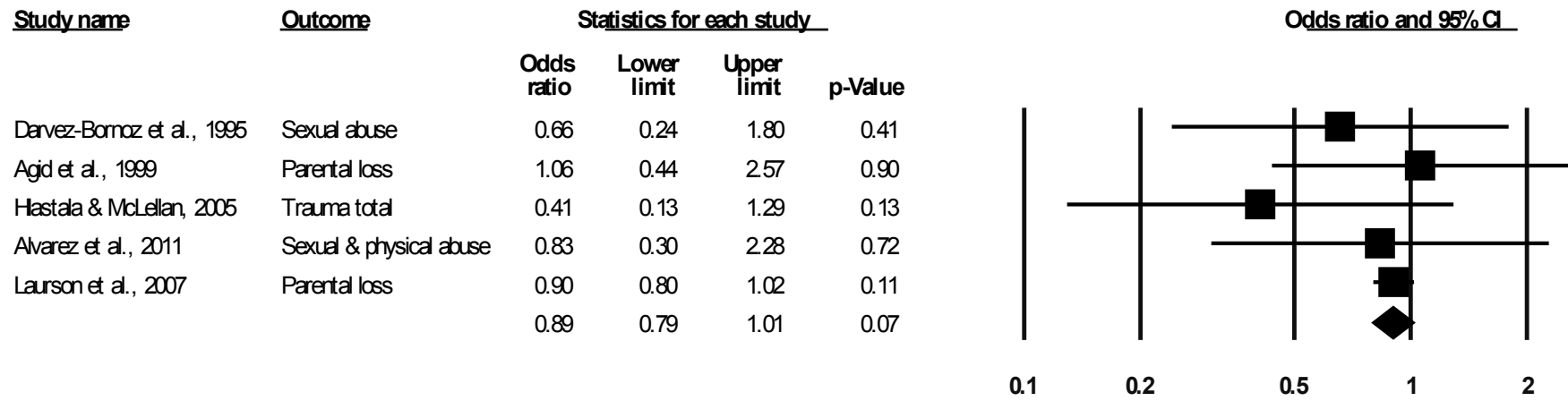


Fig. DS2 Forest plot for the bipolar disorder compared to schizophrenia analysis.

Table DS2 Quality check for case control studies

	Adequate case definition	Representativeness of the cases	Selection of controls	Definition of controls	Comparability of controls	Ascertainment of cases and controls	Same method of exposure (trauma)	Non-response rate	Total stars
<i><u>Studies exploring the overall effect of childhood adversity on bipolar disorder (stage one).</u></i>									
Agid et al., 1999	*	*	*	*	**	N	*	N	7
Furukawa et al., 1999	N	*	N	*	N	N	*	N	3
Rucklidge et al., 2006	*	N	N	N	**	N	*	N	4
Grandin et al., 2007	N	N	*	*	**	N	*	N	5
Savitz et al., 2008	N	N	N	*	N	N	*	N	2
Etain et al., 2010	*	*	*	*	N	N	*	N	4
Horesh & Iancu, 2010	N	N	N	N	**	N	*	N	3
Fowke et al., 2012	N	*	N	N	**	N	*	N	4
Konradt et al., 2013	N	*	*	*	**	N	*	N	6
Aas et al., 2014	*	N	*	*	N	N	*	N	4
Chen et al., 2014	N	*	*	N	N	N	*	N	3
Watson et al., 2014	N	N	N	*	**	N	*	N	6
Janiri et al., 2015	N	N	*	*	**	N	*	N	5
<i><u>Studies exploring the effect of childhood adversity in bipolar disorder relative to major depression and schizophrenia (stage four).</u></i>									
Alnaes & Torgersen, 1993	*	*	N	*	N	N	*	N	4
Darvez-Bornoz et al., 1995	*	*	N	N	N	N	*	N	3
Hlastala & McClellan, 2005	*	N	N	N	N	N	*	N	2
Hyun et al., 2000	*	N	N	N	N	N	*	N	2
Watson et al., 2007	N	N	N	N	N	N	*	N	1
Angst et al., 2011	*	*	N	N	N	N	*	N	3
Alvarez et al., 2011	N	*	N	N	N	N	*	N	2
Parker et al., 2013	*	*	N	N	N	N	*	N	3
Perna et al., 2014	N	*	N	N	N	N	*	N	2

NOTE: The Newcastle Ottawa Quality Assessment Scale is designed for establishing the methodological quality of prospective cohort design research and was therefore incompatible with the cross sectional (12, 39, 42) and retrospective cohort (31, 40) epidemiological studies identified in the current review. The methodological quality of these studies is discussed in the text.