

S6 Table: Risk of bias assessment, papers on psychotropics except antidepressants.

Reference	Exposure	Outcome measure	Risk of bias assessment by outcome Strengths	Limitations
Assessment using psychometric instruments				
i Assessment by health care professionals				
<i>Infant (<2 years)</i>				
Platt 1989 [114]	Antipsychotics	BSID	Appropriate eligibility criteria High rate of follow-up	Unclear whether assessment was blinded Conditioned only on parity Not mentioned how missing data were handled
Peng 2013 [113]	Antipsychotics	BSID-III	Appropriate eligibility criteria Blinded assessment High rate of follow-up	Conditioned on few, but not all, important confounders Not mentioned how missing data on covariates were handled
Johnson 2012 [73]	Antipsychotics	Infant Neurological International Battery	Blinded assessment High rate of follow-up	Exposed were recruited in pregnancy, unexposed were recruited in pregnancy and post partum Conditioned on some, but not all, important confounders Unclear how missing data were handled
Mortensen 2003 [81]	Antipsychotics , anxiolytics	Boel test	Appropriate eligibility criteria High rate of follow-up	Assessment not blinded Conditioned on intermediates, but few confounders Not mentioned how missing data were handled
Oberlander 2004 [87]	Anxiolytics (clonazepam combined with SSRI)	BSID-II	High rate of follow-up No missing data	Exposed were recruited in pregnancy and post partum, unexposed were only recruited post partum Unclear whether assessment were blinded
Reebye 2002	Anxiolytics	BSID-II	High rate of follow-up	No conditioning on confounders Exposed were recruited in pregnancy and

[92]	(clonazepam combined with SSRI)		No missing data	post partum, unexposed were only recruited post partum Unclear whether assessment was blinded No conditioning on confounders
Reebye 2012 [38]	Anxiolytics (clonazepam combined with SSRI)	BSID-II	High rate of follow-up No missing data	Exposed were recruited in pregnancy and post partum, unexposed were only recruited post partum Unclear whether assessment was blinded No conditioning on confounders
Viggedal 1993 [40]	Anxiolytics	Griffiths' mental development scale I Neuropsychological assessment	Appropriate eligibility criteria Blinded assessment High rate of follow-up No missing data	No conditioning on confounders
Gidai 2008a [105]	Anxiolytics (alprazolam)	Hungarian development test Behavioural style questionnaire	High rate of follow-up No missing data	Unexposed were siblings of exposed, but the statistical analysis did not take this into account Unclear whether assessment was blinded No conditioning on confounders
Gidai 2008b [106]	Anxiolytics (medazepam)	Hungarian development test Behavioural style questionnaire	High rate of follow-up No missing data	Unexposed were siblings of exposed, but the statistical analysis did not take this into account Unclear whether assessment was blinded No conditioning on confounders
Gidai 2008c [107]	Anxiolytics (chlordiazepoxide)	Hungarian development test Behavioural style questionnaire	High rate of follow-up No missing data	Unexposed were siblings of exposed, but the statistical analysis did not take this into account Unclear whether assessment was blinded No conditioning on confounders
Timmermann 2008b [112]	Anxiolytics (meprobamate)	Hungarian development test Behavioural style questionnaire	High rate of follow-up No missing data	Unexposed were siblings of exposed, but the statistical analysis did not take this into account Unclear whether assessment was blinded

Laegreid 1992 [108]	Anxiolytics	Touwen Neurologic Assessment, Clinical neurologic assessment	Appropriate eligibility criteria High rate of follow-up No missing data	No conditioning on confounders Assessment not blinded No conditioning on confounders
Petik 2008a [115]	Hypnotics (glutethimide)	Hungarian development test Behavioural style questionnaire	High rate of follow-up No missing data	Unexposed were siblings of exposed, but the statistical analysis did not take this into account Unclear whether assessment was blinded No conditioning on confounders
Petik 2008b [116]	Hypnotics (Amobarbital)	Hungarian development test Behavioural style questionnaire	High rate of follow-up for Hungarian development test No missing data	Unexposed were siblings of exposed, but the statistical analysis did not take this into account Unclear whether assessment was blinded No conditioning on confounders High rate of loss to follow-up for Behavioural style questionnaire
Timmermann 2008a [117]	Hypnotics (barbital, hexobarbital, butobarbital)	Hungarian development test Behavioural style questionnaire	High rate of follow-up for Hungarian development test No missing data	Unexposed were siblings of exposed, but the statistical analysis did not take this into account Unclear whether assessment was blinded No conditioning on confounders High rate of loss to follow-up for Behavioural style questionnaire
<i>Preschool (2-5 years)</i>				
Hurault- Delarue 2016 [69]	Antipsychotics , anxiolytics and hypnotics	Compulsory medical exam	Appropriate eligibility criteria High rate of follow-up	Unclear whether assessment was blinded Conditioned on intermediates, but few confounders Not mentioned how missing data were handled
Schechter 2017 [94]	Antipsychotics , anxiolytics, hypnotics	DAS	Appropriate eligibility criteria Blinded assessment Conditioned on many important	Not mentioned how missing data were handled

Hartz 1975 [35]	Anxiolytics (meprobamate, chlordiazepoxide)	Stanford Binet Intelligence Scale	confounders High rate of follow-up Appropriate eligibility criteria High rate of follow-up	Unclear whether assessment was blinded Conditioned on few, but not all, important confounders Not mentioned how missing data were handled
Mattson 2002 [79]	Anxiolytics	WPPSI-R	Appropriate eligibility criteria Blinded assessment High rate of follow-up No missing data	Conditioned on a few, but not all, important confounders
<i>School child (6-12 years)</i>				
Platt 1989 [114]	Antipsychotic	Paediatric neurologic assessment	Appropriate eligibility criteria High rate of follow-up	Unclear whether assessment was blinded Conditioned only on parity Not mentioned how missing data were handled
<i>Adolescent (13-18 years)</i>				
Mattson 2002 [79]	Anxiolytics	WISC-III	Appropriate eligibility criteria Blinded assessment High rate of follow-up No missing data	Conditioned on a few, but not all, important confounders
ii Assessment by parents				
<i>Infant (<2 years)</i>				
Reebye 2002 [92]	Anxiolytics (clonazepam combined with SSRI)	Early Infancy Temperament Questionnaire	High rate of follow-up No missing data	Exposed were recruited in pregnancy and post partum, unexposed were only recruited post partum Assessment not blinded No conditioning on confounders
<i>Preschool (2-5 years)</i>				
Lupattelli 2019 [109]	Anxiolytics, hypnotics	ASQ, CPRS-R	Appropriate eligibility criteria Conditioned on many important confounders and used negative	Assessment not blinded

			controls High rate of loss to follow-up, but the authors used inverse probability of censoring weights to handle this Missing data handled by multiple imputation	
Brandlistuen 2017 [104]	Anxiolytics, hypnotics	CBCL (shortened)	Appropriate eligibility criteria Conditioned on many important confounders and used sibling analysis	Assessment not blinded High rate of loss follow-up Not mentioned how missing data were handled
Misri 2006 [80]	Anxiolytics (clonazepam combined with SSRI)	CBCL	No missing data	Exposed were recruited in pregnancy, unexposed were recruited post partum Assessment not blinded No conditioning on confounding High and differential rate of loss follow-up
Odsbu 2015 [110]	Anxiolytics	Intelligibility/Complexity of 3-year-old Children's Utterances	Appropriate eligibility criteria Conditioned on many important confounders and used negative controls	Assessment not blinded High rate of loss follow-up Not mentioned how missing data were handled
<i>School child (6-12 years)</i> Radojčić 2017 [111]	Anxiolytics	CBCL	Appropriate eligibility criteria Conditioned on many important confounders Missing data handled by multiple imputation	Assessment not blinded Rate of loss to follow-up unclear

iii Assessment by teachers/others

Preschool (2-5 years)

Misri 2006 [80]	Anxiolytics (clonazepam combined with SSRI)	CBCL	No missing data	Exposed were recruited in pregnancy, unexposed were recruited post partum Unclear whether assessment was blinded No conditioning on confounding High rate of loss follow-up
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School child (6-12 years)

Radojčić 2017 [111]	Anxiolytics	CBCL	Appropriate eligibility criteria Conditioned on many important confounders Missing data handled by multiple imputation	Unclear whether assessment was blinded Rate of loss to follow-up unclear
Assessment using medical diagnosis				
Figueroa 2010 [56]	Anxiolytics	ADHD	Appropriate eligibility criteria Conditioned on many important confounders High rate of follow-up	Detection bias cannot be ruled out Not mentioned how missing data were handled
Janecka 2018 [72]	Lithium	ASD	Appropriate eligibility criteria High rate of follow-up	Detection bias cannot be ruled out Conditioned on some, but not all, important confounders Not mentioned how missing data were handled

Reference numbers in brackets refer to the reference list in the article.

ADHD: Attention Deficit Hyperactivity Disorder, ASD: Autism Spectrum Disorder, ASQ: Ages and Stages Questionnaire, BSID: Bayley Scales of Infant Development, CBCL: Child Behaviour Checklist, CPRS:R: Conners' Parent Rating Scale, revised, DAS: Differential ability scales, NPV: Negative predictive value, PPV: Positive predictive value, WISC: Wechsler Intelligence Scale for Children, WPPSI: Wechsler Preschool and Primary Scale of Intelligence.