

Attachment styles

Introduction

Attachment styles are used to describe patterns of attachment in relationships. Adults with a secure attachment style tend to have good self-esteem, they share their feelings with partners and friends, and have trusting, lasting relationships. Insecure attachment styles include anxious attachment style (also known as ambivalent or preoccupied), which involves reluctance to become close to others, worry about the security of relationships, a reduced sense of autonomy, and increased dependence on others. Avoidant attachment style is another insecure style. It involves problems with intimacy, over-regulation of emotions, and unwillingness to share thoughts and feelings. Fearful attachment style is represented by an inconsistent sense of self and an inability to regulate one's emotions.

While attachment style in adulthood is thought to be based on early experiences with primary care givers, life's experiences can also impact on attachment style in adults. Children described as ambivalent or avoidant can become securely attached as adults, while those with a secure attachment in childhood can show insecure attachment patterns in adulthood.

Method

We have included only systematic reviews with detailed literature search, methodology, and inclusion/exclusion criteria that were published in full text, in English, from the year 2000. Reviews were identified by searching the databases MEDLINE, EMBASE, and PsycINFO. Reviews with pooled data are prioritized for inclusion. Reviews reporting fewer than 50% of items on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses ([PRISMA](#)¹) checklist have been excluded from the library. The evidence was graded guided by

the Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group approach². The resulting table represents an objective summary of the available evidence, although the conclusions are solely the opinion of staff of NeuRA (Neuroscience Research Australia).

Results

We found three systematic reviews that met our inclusion criteria³⁻⁵.

- Moderate to high quality evidence finds the prevalence of insecure attachment styles is higher in people with psychosis than controls (76% vs. 38%), with fearful attachment style being the most prevalent in patients (38%) followed by avoidant (23%) then anxious (17%).
- Moderate to high quality evidence finds a large effect of more insecure attachment style in people with schizophrenia than controls. The effect size was similar in people with depression or bipolar disorder compared to controls. It was also large across all three disorders for anxious attachment style, however for avoidant attachment style, it was small for schizophrenia, medium-sized for bipolar disorder, and large for depression.
- Moderate to high quality evidence finds small to medium-sized associations between increased general and positive symptoms and increased anxious and avoidant attachment styles. There was a weak association between negative symptoms and avoidant attachment style and no significant association with anxious attachment style. There were also medium-sized associations between decreased social and personal recovery and increased anxious and avoidant attachment styles.

Carr SC, Hardy A, Fornells-Ambrojo M

Relationship between attachment style and symptom severity across the psychosis spectrum: A meta-analysis

Clinical Psychology Review 2018; 59: 145-58

[View review abstract online](#)

Comparison	Relationship between symptoms and insecure attachment style in people with psychosis and controls.
Summary of evidence	Moderate to high quality evidence (large samples, inconsistent, precise, direct) finds the prevalence rate of insecure attachment style was significantly higher in people with psychosis than controls (76% vs. 38%), with fearful attachment style being the most prevalent followed by avoidant then anxious.
Insecure attachment styles	
<p><i>The prevalence rate of insecure attachment styles was significantly higher in people with psychosis;</i></p> <p>Psychosis: 10 studies, N = 1,305, prevalence = 76%, 95%CI 0.65% to 0.84%, I² = 86%</p> <p>Control: 6 studies, N = 10,391, prevalence = 38%, 95%CI 0.31% to 0.44%, I² = 59%</p> <p>Q = 29.24, p < 0.001</p> <p>Subgroup analysis within the clinical sample showed fearful attachment style was the most prevalent (38%), followed by avoidant attachment style (23%) then anxious attachment style (17%).</p> <p><i>Small, significant associations were found between increased positive symptoms (or psychotic-like symptoms in controls) and increased anxious attachment style;</i></p> <p>Psychosis: 11 studies, r = 0.23, 95%CI 0.14 to 0.33, p < 0.001, I² ≥ 50%</p> <p>Control: 11 studies, r = 0.28, 95%CI 0.21 to 0.35, p < 0.001, I² ≥ 80%</p> <p><i>A small, significant association was found between increased negative-like symptoms in controls and increased anxious attachment style, with no significant association in clinical samples;</i></p> <p>Psychosis: 7 studies, r = 0.11, 95%CI -0.03 to 0.25, p = 0.057, I² ≥ 50%</p> <p>Control: 5 studies, r = 0.25, 95%CI 0.12 to 0.37, p < 0.001, I² ≥ 80%</p> <p><i>Small, significant associations were found between increased positive symptoms (or psychotic-like symptoms in controls) and increased avoidant attachment style;</i></p> <p>Psychosis: 11 studies, r = 0.15, 95%CI 0.04 to 0.25, p = 0.006, I² ≥ 50%</p>	

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<p>Control: 11 studies, $r = 0.19$, 95%CI 0.13 to 0.25, $p < 0.001$, $I^2 \geq 80\%$ <i>A small, significant association was found between increased negative-like symptoms in controls and increased avoidant attachment style, with no significant association in clinical samples;</i> Psychosis: 7 studies, $r = 0.11$, 95%CI -0.03 to 0.25, $p = 0.133$, $I^2 \geq 50\%$ Control: 5 studies, $r = 0.38$, 95%CI 0.28 to 0.48, $p < 0.001$, $I^2 \geq 80\%$</p>	
Consistency in results[‡]	Inconsistent
Precision in results[§]	Precise
Directness of results	Direct

<p><i>Herstell S, Betz LT, Penzel N, Chechelnizki R, Filihagh L, Antonucci L, Kambeitz J</i> Insecure attachment as a transdiagnostic risk factor for major psychiatric conditions: A meta-analysis in bipolar disorder, depression, and schizophrenia spectrum disorder Journal of Psychiatric Research 2021; 144: 190-201 View review abstract online</p>	
Comparison	Insecure attachment styles in people with schizophrenia vs. controls and vs. depression and bipolar disorder.
Summary of evidence	Moderate to high quality evidence (large sample, inconsistent, precise, direct) finds a large effect of more insecure attachment style in people with schizophrenia than controls. The effect size was similar in people with depression or bipolar disorder compared to controls. It was also large across all three disorders for anxious attachment style, however for avoidant attachment style, it was small for schizophrenia, medium-sized for bipolar disorder, and large for depression.
Insecure attachment styles	
<p><i>A large effect of more insecure attachment styles in people with schizophrenia than controls;</i> 10 studies, $N = 918$, $g = 0.79$, 95%CI 0.52 to 1.07, $p < 0.05$, $I^2 = 68\%$</p>	

<p>Subgroup analysis found similar effect sizes for insecure attachment style between people with depression vs. controls ($g = 0.96$), and between people with bipolar disorder vs. controls ($g = 0.89$). People with schizophrenia, depression or bipolar disorder all showed significant, large effects of more anxious attachment style than controls, with similar effect sizes across disorders (schizophrenia $g = 0.85$, depression $g = 0.94$, bipolar disorder $g = 1.07$). People with schizophrenia, depression or bipolar disorder all showed significantly more avoidant attachment style than controls, although the effect size for schizophrenia was small and bipolar disorder was medium-sized and depression showed a large effect (schizophrenia $g = 0.31$, depression $g = 0.83$, bipolar disorder $g = 0.50$). There were insufficient studies reporting fearful attachment style for subgroup analyses.</p>	
Consistency in results	Inconsistent
Precision in results	Precise
Directness of results	Direct

<p><i>van Bussel EMM, Nguyen NHM, Wierdsma AI, van Aken BC, Willems IEMG, Mulder CL</i></p> <p>Adult Attachment and Personal, Social, and Symptomatic Recovery From Psychosis: Systematic Review and Meta-Analysis</p> <p>Frontiers in Psychiatry 2021; 12: 641642 View review abstract online</p>	
Comparison	Relationship between insecure attachment styles and outcomes in people with a psychotic disorder (mostly schizophrenia).
Summary of evidence	Moderate to high quality evidence (large sample, some inconsistency, precise, direct) finds small to medium-sized associations between increased general and positive symptoms and increased anxious and avoidant attachment styles. There was a weak association between negative symptoms and avoidant attachment style and no significant association with anxious attachment style. There were also medium-sized associations between decreased social and personal recovery and increased anxious and avoidant attachment styles.

Insecure attachment style and symptoms	
28 studies, N = 2,598	
<i>Small to medium-sized associations were found between increased general symptoms and increased anxious and avoidant attachment styles;</i>	
Anxious: 7 studies, $r = 0.28$, 95%CI 0.17 to 0.37, $p < 0.001$, $I^2 = 35\%$	
Avoidant: 7 studies, $r = 0.20$, 95%CI 0.11 to 0.29, $p < 0.001$, $I^2 = 25\%$	
<i>Small to medium-sized associations were found between increased positive symptoms and increased anxious and avoidant attachment styles;</i>	
Anxious: 15 studies, $r = 0.24$, 95%CI 0.16 to 0.33, $p < 0.001$, $I^2 = 40\%$	
Avoidant: 15 studies, $r = 0.20$, 95%CI 0.14 to 0.26, $p < 0.05$, $p < 0.001$, $I^2 = 9\%$	
<i>There was a weak association between negative symptoms and avoidant attachment style and no significant association with anxious attachment style;</i>	
Anxious: 8 studies, $r = 0.02$, 95%CI -0.04 to 0.09, $p = 0.477$, $I^2 = 1\%$	
Avoidant: 8 studies, $r = 0.09$, 95%CI 0.03 to 0.16, $p < 0.05$, $p = 0.09$, $I^2 = 1\%$	
Recovery	
<i>Medium-sized associations were found between decreased social recovery and increased anxious and avoidant attachment styles;</i>	
Anxious: 3 studies, $r = -0.47$, 95%CI -0.72 to 0.11, $p = 0.0116$, $I^2 = 86\%$	
Avoidant: 3 studies, $r = -0.27$, 95%CI -0.39 to 0.14, $p < 0.001$, $I^2 = 0\%$	
<i>Medium-sized associations were found between decreased personal recovery and increased anxious and avoidant attachment styles;</i>	
Anxious: 3 studies, $r = -0.39$, 95%CI -0.49 to -0.28, $p < 0.001$, $I^2 = 1\%$	
Avoidant: 3 studies, $r = -0.31$, 95%CI -0.42 to -0.20, $p < 0.001$, $I^2 = 0\%$	
Consistency in results	Consistent, apart from social recovery and anxious attachment style.
Precision in results	Precise, apart from social recovery and anxious and avoidant attachment style.
Directness of results	Direct

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Explanation of acronyms

CI = confidence interval, d = Cohen's d and g = Hedges' g = standardised mean differences, I^2 = the percentage of the variability in effect estimates that is due to heterogeneity rather than sampling error (chance), N = number of participants, p = statistical probability of obtaining that result ($p < 0.05$ generally regarded as significant), Q = Q statistic for the test of heterogeneity, r = correlation coefficient, SMD = standardised mean difference, vs. = versus

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Explanation of technical terms

* Bias has the potential to affect reviews of both RCT and observational studies. Forms of bias include; reporting bias – selective reporting of results; publication bias - trials that are not formally published tend to show less effect than published trials, further if there are statistically significant differences between groups in a trial, these trial results tend to get published before those of trials without significant differences; language bias – only including English language reports; funding bias - source of funding for the primary research with selective reporting of results within primary studies; outcome variable selection bias; database bias - including reports from some databases and not others; citation bias - preferential citation of authors. Trials can also be subject to bias when evaluators are not blind to treatment condition and selection bias of participants if trial samples are small.⁶

† Different effect measures are reported by different reviews.

Prevalence refers to how many existing cases there are at a particular point in time. Incidence refers to how many new cases there are per population in a specified time period. Incidence is usually reported as the number of new cases per 100,000 people per year. Alternatively some studies present the number of new cases that have accumulated over several years against a person-years denominator. This denominator is the sum of individual units of time that the persons in the population are at risk of becoming a case. It takes into account the size of the underlying

population sample and its age structure over the duration of observation.

Reliability and validity refers to how accurate the instrument is. Sensitivity is the proportion of actual positives that are correctly identified (100% sensitivity = correct identification of all actual positives) and specificity is the proportion of negatives that are correctly identified (100% specificity = not identifying anyone as positive if they are truly not).

Mean difference scores refer to mean differences between treatment and comparison groups after treatment (or occasionally pre to post treatment) and in a randomised trial there is an assumption that both groups are comparable on this measure prior to treatment. Standardised mean differences are divided by the pooled standard deviation (or the standard deviation of one group when groups are homogenous) that allows results from different scales to be combined and compared. Each study's mean difference is then given a weighting depending on the size of the sample and the variability in the data. Less than 0.4 represents a small effect, around 0.5 a medium effect, and over 0.8 represents a large effect⁶.

Odds ratio (OR) or relative risk (RR) refers to the probability of a reduction (< 1) or an increase (> 1) in a particular outcome in a treatment group, or a group exposed to a risk factor, relative to the comparison group. For example, a RR of 0.75 translates to a reduction in risk of an outcome of 25% relative to those not receiving the treatment or not exposed to the risk factor. Conversely, a RR of 1.25 translates to an increased risk of 25% relative to those not receiving treatment or not having been exposed to a risk factor. A RR or OR of 1.00 means there is no difference between groups. A medium effect is considered if $RR >$

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2 or < 0.5 and a large effect if $RR > 5$ or < 0.27 . InOR stands for logarithmic OR where a InOR of 0 shows no difference between groups. Hazard ratios measure the effect of an explanatory variable on the hazard or risk of an event.

Correlation coefficients (eg, r) indicate the strength of association or relationship between variables. They can provide an indirect indication of prediction, but do not confirm causality due to possible and often unforeseen confounding variables. An r of 0.10 represents a weak association, 0.25 a medium association and 0.40 and over represents a strong association. Unstandardised (b) regression coefficients indicate the average change in the dependent variable associated with a 1 unit change in the independent variable, statistically controlling for the other independent variables. Standardised regression coefficients represent the change being in units of standard deviations to allow comparison across different scales.

‡ Inconsistency refers to differing estimates of effect across studies (i.e. heterogeneity or variability in results) that is not explained by subgroup analyses and therefore reduces confidence in the effect estimate. I^2 is the percentage of the variability in effect estimates that is due to heterogeneity rather than sampling error (chance) - 0% to 40%: heterogeneity might not be important, 30% to 60%: may represent moderate heterogeneity, 50% to 90%: may represent considerable heterogeneity and over this is considerable heterogeneity. I^2 can be calculated from Q (chi-square) for the test of heterogeneity with the following formula,⁶

$$I^2 = \left(\frac{Q - df}{Q} \right) \times 100\%$$

§ Imprecision refers to wide confidence intervals indicating a lack of confidence in the effect estimate. Based on GRADE recommendations, a result for continuous data is considered imprecise if the upper or lower confidence limit crosses an effect size of 0.5 in either direction, and for binary and correlation data, an effect size of 0.25. GRADE also recommends downgrading the evidence when sample size is smaller than 300 (for binary data) and 400 (for continuous data), although for some topics, these criteria should be relaxed⁸.

|| Indirectness of comparison occurs when a comparison of intervention A versus B is not available but A was compared with C and B was compared with C that allows indirect comparisons of the magnitude of effect of A versus B. Indirectness of population, comparator and/or outcome can also occur when the available evidence regarding a particular population, intervention, comparator, or outcome is not available and is therefore inferred from available evidence. These inferred treatment effect sizes are of lower quality than those gained from head-to-head comparisons of A and B.

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References

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