

# Research Summary

## Associations of childhood sexual abuse and mental health conditions

The purpose of this research summary is to summarise the six ACC commissioned evidence-based reviews investigating the relationship between childhood sexual abuse and mental health conditions: depression, anxiety, bipolar disorder, borderline personality disorder, alcohol abuse, and trauma-related responses.

This research summary is based solely on the six evidence-based reviews of child sexual abuse and mental health conditions commissioned by ACC.

Dr Patricia Niland,  
Knowledge Management Team,  
Clinical Services Directorate, ACC.

Dr Kris Fernando, ACC National  
Manager, Psychology and Mental Health.

27 September 2016

## **Table of contents**

<b>1.0 Mental health assessments: Associations of childhood sexual abuse and mental health conditions .....</b>	<b>3</b>
Alcohol use disorder.....	3
Anxiety disorders.....	3
Bipolar disorders.....	4
Borderline personality disorder .....	4
Depressive disorders.....	5
Trauma- Related responses.....	5
<b>2.0 Research methodology to investigate the relationship between childhood sexual abuse and mental health conditions .....</b>	<b>6</b>
What is child sexual abuse?.....	6
Prevalence.....	6
Impacts .....	6
Approach to researching the evidence.....	7
Epidemiology: patterns of exposures and health outcomes .....	7
Evidence-based research: A critical appraisal.....	7
Strengths and limitations of research .....	7
<b>3.0 Conducting the evidenced-based reviews .....</b>	<b>8</b>
<b>4.0 References .....</b>	<b>9</b>

## **1.0 Mental health assessments: Associations of childhood sexual abuse and mental health conditions**

The links between a client's history and their mental health presentation depend on a full and thorough formulation considering all contributing factors. The following research findings provide a guide to the associations between those experiencing childhood sexual abuse and experiencing mental health conditions.

ACC commissioned six evidence-based reviews to investigate the relationship between childhood sexual abuse and mental health conditions (depression, anxiety, bipolar disorder, borderline personality disorder, alcohol abuse, and trauma-related responses). This research addresses associations between a childhood sexual abuse history and experiences of various mental health conditions later in life. These are not causal links but information about associations which may be useful in considering formulations. Summaries of each of the review findings are presented here in Section 1. Sections 2 and 3 describe the research methodology.

### **Alcohol use disorder**

"A problematic pattern of alcohol use leading to clinically significant impairment or distress ..." (DSM-5, pp.490-491).

There is moderate to high quality research evidence that childhood sexual abuse is associated with the development of problematic alcohol use (ACC, 2016a). Childhood sexual abuse is shown to be associated with alcohol use during adolescence, including higher rates of initiating alcohol use during adolescence, current, regular, frequent and excessive use of alcohol, and alcohol use disorders (Draucker, & Mazurczyk, 2013; Rind, & Bauserman, 1998; Tonmyr, Thornton, Draca, & Wekerle, 2010). It has also been demonstrated that the extent of childhood sexual abuse for a NZ cohort was linked to an increased rate of alcohol dependence at age 30 (Fergusson, McLeod, & Horwood, 2013). An Australian cohort study identified that exposure to sexual abuse significantly increased the risk of subsequent alcohol abuse (Cutajar, Mullen, Ogloff, Thomas, Wells, & Spataro, 2010). Further, three primary studies demonstrated that childhood sexual abuse is associated with higher risk for alcohol dependence (Nelson et al., 2002; 2010; Dinwiddie, et al., 2000).

### **Anxiety disorders**

"...disorders that share features of excessive fear and anxiety and related behavioural disturbances. Fear is the emotional response to real or perceived imminent threat, whereas anxiety is anticipation of future threat" (DSM-5, p.189).

There is fair to moderate quality research evidence that childhood sexual abuse is associated with the development of anxiety disorders (ACC, 2016b). It has been found that people with childhood sexual abuse are significantly more likely to have anxiety in adulthood compared to those with no childhood sexual abuse, and significantly more likely to develop anxiety than people who experienced childhood

physical abuse (Lindert, et al., 2014). The anxiety disorders identified in this association with childhood sexual abuse were PTSD, obsessive-compulsive disorders (Maniglio, 2013; Carr, Martins, Stingel, Lemgruber, & Juruena, 2013); generic anxiety and phobic symptoms (Maniglio, 2013); and panic disorder and agoraphobia (Carr et al., 2013). It has also been shown that victims of childhood/adolescent sexual abuse were more likely to develop anxiety (generalised anxiety, specific phobias, social phobia, and panic disorder) than were non-victims ((Amado, Arce, & Herraiz, 2015). Childhood sexual abuse has also been shown to be associated with higher anxiety than child abuse/neglect, community violence, and complex trauma (Martinez, Polo, & Zelic, 2014).

## **Bipolar disorders**

Episodes of manic, hypomanic, and depressive episodes that cause marked impairment in a person's social or occupational functioning (DSM-5, pp.123-154).

There is fair quality research evidence that childhood sexual abuse is associated with the development of bipolar disorders (ACC, 2016c). It has been found that people with bipolar disorder are more likely to have experienced childhood sexual abuse than those in the general population. However, rates of child sexual abuse among those with bipolar disorder are similar or lower compared to those with other mental disorders (Maniglio, 2013a; Mauritz, Goossens, Draijer, & van Achterberg, 2013). Further, childhood sexual abuse was found to be both indirectly and directly associated with clinical features that represent a more severe presentation of bipolar disorder, including early onset of bipolar disorder and suicidal attempts among adults, as well as a longer duration of bipolar disorder among youth (Maniglio, 2103b).

## **Borderline personality disorder**

"A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity, beginning by early adulthood ..." (DSM-5, p.663).

There is fair to moderate quality research evidence that childhood sexual abuse is associated with the development of bipolar disorders (ACC, 2016d). A history of childhood sexual abuse has been shown to be associated with borderline personality disorder (Fossati, Madeddu, & Maffei, 1999; Martins et al., 2011). This association is strongly and consistently identified (Cotter, Kaess, & Yung, 2015; MacIntosh, Godbout, & Dubash, 2015) with exposure to sexual abuse increasing the risk of subsequent borderline personality disorder (Cutajar et al., 2010). A number of primary studies support this finding that childhood sexual abuse is predictive of borderline personality disorder (Hernandez, Arntz, Gaviria, Labad, & Gutierrez-Zotes, 2012; Huang, Yang, Wu, Napolitano, Xi, & Cui, 2012; Leporte, Paris, Guttman, & Russell, 2011; Merza, Papp, & Szabo, 2015; Pietrek, Elbert, Weierstall, Muller, & Rockstroh, 2013; Wingenfeld, et al., 2011). It has also been found that common genetic influences (predisposition to depression, anger, anxiety and impulsivity) are

more strongly linked to borderline personality disorder conditions than the effect of childhood sexual abuse (Bornovalova et al., 2013). However, childhood sexual abuse may not be a specific or unique risk factor for the diagnosis of borderline personality disorder. Instead, there appear to be more complex indirect relationships between specific trauma types and later diagnosis of borderline personality disorder (MacIntosh, Godbout, & Dubash, 2015).

### **Depressive disorders**

“The common feature of all of these disorders is the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual’s capacity to function. What differs among them are issues of duration, timing, or presumed etiology” (DSM-5, p.155).

There is fair to high quality research evidence that childhood sexual abuse is associated with the development of depressive disorders (ACC, 2016e). An association was found between childhood sexual abuse and depression (Carr, Martins, Stingel, Lemgruber, & Juruena, 2013; Maniglio, 2010) with childhood sexual abuse significantly increasing the risk of lifetime diagnosis of depression (Chen, et al., 2010). Compared to people with no childhood sexual abuse, people who experienced this trauma were significantly more likely to develop depression in adulthood ((Amado, Arce, & Herraiz, 2015; Lindert, et al., 2014; Mandelli, Petrelli, & Serretti, 2015). Emotional abuse had the strongest association with depression, followed by neglect, sexual abuse, domestic violence, and physical abuse (Mandelli, Petrelli, & Serretti, 2015). Sexual abuse was associated with higher depressive symptoms than child abuse/neglect, community violence, and complex trauma (Martinez, Polo, & Zelic, 2014).

### **Trauma- Related responses**

Responses to exposure to a traumatic or stressful event which, rather than anxiety or fear-based, are anhedonic (inability to experience pleasure), dysphoric (uneasiness), externalizing anger and aggression, or dissociating, or internalizing depression (DSM-5, pp.264-308).

There is fair to moderate quality research evidence that childhood sexual abuse is associated with the development of trauma-related responses (ACC, 2016f). An association was found between childhood sexual abuse and post-traumatic stress symptoms (Maniglio, 2013), and this abuse was associated with higher post-traumatic stress than child abuse/neglect, community violence, and complex trauma (Martinez, Polo, & Zelic, 2014). A New Zealand study found that childhood sexual abuse was associated with an increase in the number of post-traumatic stress symptoms (Fergusson, McLeod, & Horwood, 2013). An Australian study found that experiences of childhood sexual abuse significantly increased the risk of subsequent post-traumatic stress disorder (Cutajar et al., 2010). Childhood sexual abuse was associated with post-traumatic stress disorder or symptomatology among pregnant

and postpartum women; however, some findings are mixed (Wosu, Gelaye, & Williams, 2015).

## **2.0 Research methodology to investigate the relationship between childhood sexual abuse and mental health conditions**

The ACC commissioned evidence-based reports investigating childhood sexual abuse and mental health conditions provide clinical advisors, claims management staff and service providers with an evidence-based guide on the relationship between childhood sexual abuse and the development of mental health conditions depression, anxiety, bipolar disorder, borderline personality disorder, alcohol abuse, and trauma-related responses. This section outlines the methodology for this research.

### **What is child sexual abuse?**

Child sexual abuse encompasses any sexual act involving a child that is intended to provide sexual gratification to a parent, caregiver, or other individual in contact with the child. This abuse includes all forms of physical sexual contact and non-contact exploitations such as making a child participate in acts for the sexual gratification of others (DSM-5, p.718).

### **Prevalence**

The estimated prevalence of childhood sexual abuse for females is between 8 to 31%, and between 3 to 17% for males; the wide estimate ranges reflecting the heterogeneity of studies (Barth, Bermetz, Heim, Trelle, & Tonia, 2013). Despite the methodological challenges inherent in conducting international systematic reviews and meta-analyses, most studies have consistently shown that worldwide more than one out of five women, and one out of ten men experience childhood sexual abuse (Pereda, Guilera, Forns, & Gómez-Benito, 2009). However, underreporting of childhood sexual abuse is a well-documented phenomenon and impacts these prevalence rates (Leclerc & Wortley, 2015).

### **Impacts**

For victims of childhood sexual abuse, the effects can be devastating both in the short- and long-term. Frequently reported short-term effects include fear, anxiety, depression, aggression, anger and hostility, and sexually inappropriate behaviour. Long-term effects include ongoing depression and anxiety, poor self-esteem, difficulty in trusting others, self-harm and suicide, a tendency toward revictimisation, feelings of isolation and stigma, substance abuse, and a host of other mental health problems (Browne & Finkelhor, 1986; Fergusson, McLeod, & Horwood, 2013; Paolucci, Genuis, & Violato, 2001).

## **Approach to researching the evidence**

An epidemiological approach was used to investigate the relationship between child sexual abuse and the development of mental health conditions. This approach incorporated an evidence-based critical appraisal of the research in this field.

## **Epidemiology: patterns of exposures and health outcomes**

The key ideas of an epidemiology approach are that patterns, causes and effects of health and disease conditions can be observed (measured) in defined populations. They are observed by comparing health outcomes for groups of people either exposed or unexposed to a 'disease' condition. Differences in health outcomes between the exposed and unexposed groups are calculated largely through risk-based statistics. These statistics (e.g. risk ratio, odds ratio, population ratio) are the basis for determining if there is an association<sup>1</sup> between the exposure and the health outcome. In our evidence-based research reports the association between childhood sexual abuse and mental health conditions is determined primarily through odds-ratios; the likelihood of having/not having a health outcome based on being exposed/not exposed to a 'disease' condition. Across all our evidence-based reports, for all childhood sexual abuse and mental health conditions, significant associations (based primarily on odds-ratios) were demonstrated within the research studies that were appraised.

## **Evidence-based research: A critical appraisal**

The strength of this evidence for an association between childhood sexual abuse and mental health conditions is influenced by how well the research studies were designed and carried out. Failure to give due attention to key aspects of study methods increases the risk of bias or confounding and thus reduces the study's reliability. Our evidence-based reports critically appraised the research undertaken using the Scottish Intercollegiate Network Guidelines (SIGN) standards, focusing on those aspects of study design which research has shown to have a significant influence on the validity of the results and conclusions. The majority of studies appraised in our evidence-based reviews are systematic reviews and meta-analyses; study designs with the least amount of bias if they are conducted to a quality standard (see <http://www.sign.ac.uk/methodology/index.html> for a description of research design types and ways to evaluate their quality).

## **Strengths and limitations of research**

Limitations of the research examining the association between childhood sexual abuse and mental health conditions include methodological limitations of studies included in reviews; childhood sexual abuse and outcomes being assessed using a variety of different methods; omitting qualitative or people's meaning-making of childhood sexual abuse and mental health conditions; abuse reported

---

<sup>1</sup> *For a discussion of ways to observe associations between exposures to disease conditions and health outcomes see Hill, A.B. (1965). The environment and disease: association or causation? Proc R Soc Med, 58, 295-300.*

retrospectively and subject to recall bias; abuse under-reported due to the complexities involved such as social and cultural influences.

The strength of the research evidence is that it is grounded in an epidemiological methodology that seeks to capture observed patterns, causes and effects of exposures to health outcomes. This approach justifies quantitative data collection and analysis to measure what is observed. This approach gives rigor to the research process and allows us to assess the research quality to have confidence in its findings. A further strength is the evidence-based practice employed to critically appraise the research. This practice is the fundamental basis by which we can evaluate the quality of evidence produced to answer the research questions within this epidemiological paradigm.

### 3.0 Conducting the evidenced-based reviews

For child sexual abuse and each mental health condition, a search was conducted in November 2015 in the following databases: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Cochrane Database of Systematic Reviews, and PsycINFO. Further literature was also located through searching the Worldwide Web and reading the reference list of review articles. Only articles in English and published between 2000 and 2015 were included. Search terms were defined for each mental health condition. Inclusion criteria were systematic reviews and meta-analyses looking at the relationship between childhood sexual abuse and the mental health condition. Non-English studies, animal or laboratory studies, narrative reviews, letters or editorials; study designs other than systematic review or meta-analysis were excluded. If research was limited, cohort, case-control and narrative studies were included. Each included study was assessed for methodological quality using the following SIGN criteria:

---

#### **SIGN Levels of evidence** (<http://www.sign.ac.uk/>)

---

1++ (high)	High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias
1+ (moderate)	Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias
1- (fair)	Meta-analyses, systematic reviews, or RCTs with a high risk of bias
2++ (high)	High quality systematic reviews of case control or cohort or studies  High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal
2+ (moderate)	Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the

---



---

**SIGN Levels of evidence** (<http://www.sign.ac.uk/>)

---

	relationship is causal
2- (Fair)	Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal
3	Non-analytic studies, e.g. case reports, case series
4	Expert opinion

---

## 4.0 References

- Amado, B.G., Arce, R., & Herraiz, A. (2015). Psychological injury in victims of child sexual abuse: a meta-analytic review. *Psychological Intervention*, 24, 49-62.
- Barth, J., Bermetz, L., Heim, E., Trelle, S., & Tonia, T. (2013). The current prevalence of child sexual abuse worldwide: a systematic review and meta-analysis. *International Journal of Public Health*, 58(3), 469-483.
- Bornovalova, M.A., Huibregtse, B.M., Hicks, B.M., Keyes, M., McGue, M., & Iacono, W. (2013). Tests of a direct effect of childhood abuse on adult borderline personality disorder traits: A longitudinal discordant twin study. *Journal of Abnormal Psychology*, 122(1), 180-194.
- Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: a review of the research. *Psychological Bulletin*, 99(1), 66.
- Carr, C.P., Martins, C.M., Stingel, A.M., Lemgruber, V.B., & Juruena, M.F. (2013). The role of early life stress in adult psychiatric disorders: a systematic review according to childhood trauma subtypes. *J Nerv Ment Dis*, 201(12), 1007-1020.
- Chen, L.P., et al. (2010). Sexual abuse and lifetime diagnosis of psychiatric disorders: systematic review and meta-analysis. *Mayo Clin Proc* 2010, 85(7),618-29.
- Cotter, J., Kaess, M., & Yung, A.R. (2015). Childhood trauma and functional disability in psychosis, bipolar disorder and borderline personality disorder: A review of the literature. *Irish Journal of Psychological Medicine*, 32(1), 21-30.
- Cutajar, M.C., Mullen, P.E., Ogloff, J.R., Thomas, S.D., Wells, D.L., & Spataro, J. (2010). Psychopathology in a large cohort of sexually abused children followed up to 43 years. *Child Abuse and Neglect*, 34, 813-822.
- Dinwiddie, S., et al. (2000). Early sexual abuse and lifetime psychopathology: A co-twin-control study. *Psychological Medicine*, 30, 41-52.

- Draucker, C.B., & Mazurczyk, J.M. (2013). Relationships between childhood sexual abuse and substance use and sexual risk behaviors during adolescence: An integrative review. *Nursing Outlook*, *61*, 291-310.
- DSM-5. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Association.
- Fergusson, D. M., McLeod, G. F., & Horwood, L. J. (2013). Childhood sexual abuse and adult developmental outcomes: Findings from a 30-year longitudinal study in New Zealand. *Child Abuse & Neglect*, *37*(9), 664-674.
- Fossati, A., Madeddu, F., & Maffei, C. (1999). Borderline personality disorder and childhood sexual abuse: A meta-analytic study. *Journal of Personality Disorders*, *13*, 268–280.
- Hernandez, A., Arntz, A., Gaviria, A.M., Labad, A., & Gutierrez-Zotes, J.A. (2012). Relationships between childhood maltreatment, parenting style, and borderline personality criteria. *Journal of Personality Disorders*, *26*(5), 727-736.
- Huang, J., Yang, Y., Wu, J., Napolitano, L.A., Xi, Y., & Cui, Y. (2012). Childhood abuse in Chinese patients with borderline personality disorder. *Journal of Personality Disorders*, *26*(2), 238-254.
- Leclerc, B., & Wortley, R. (2015). Predictors of victim disclosure in child sexual abuse: additional evidence from a sample of incarcerated adult sex offenders. *Child Abuse & Neglect*, *43*, 104-111.
- Leporte, L., Paris, J., Guttman, H., & Russell, J. (2011). Psychopathology, childhood trauma, and personality traits in patients with borderline personality disorder and their sisters. *Journal of Personality Disorders*, *25*(4), 448-462.
- Lindert, J., von Ehrenstein, O.S., Grashow, R., Gal, G., Braehler, E., & Weisskopf, M.G. (2014). Sexual and physical abuse in childhood is associated with depression and anxiety over the life course: systematic review and meta-analysis. *Int J Public Health*, *59*, 359-372.
- MacIntosh, H. B., Godbout, N., & Dubash, N. (2015). Borderline personality disorder: Disorder of trauma or personality, a review of the empirical literature. *Canadian Psychology/Psychologie canadienne*, *56*(2), 227.
- Mandelli, L., Petrelli, C., & Serretti, A. (2015). The role of specific early trauma in adult depression: a meta-analysis of published literature. Childhood trauma and adult depression. *European Psychiatry*, *30*, 665-680.
- Maniglio, R. (2010). Child sexual abuse in the etiology of depression: A systematic review of reviews. *Depression and anxiety*, *27*(7), 631-642.

- Maniglio, R. (2013). Child Sexual Abuse in the Etiology of Anxiety Disorders A Systematic Review of Reviews. *Trauma, Violence, & Abuse, 14*(2), 96-112.
- Maniglio, R. (2013a). Prevalence of child sexual abuse among adults and youths with bipolar disorder: A systematic review. *Clinical Psychology Review, 33*, 561-573.
- Maniglio, R. (2013b). The impact of child sexual abuse on the course of bipolar disorder: A systematic review. *Bipolar Disorders, 15*, 341–358.
- Martinez, W., Polo, A.J., & Zelic, K.J. (2014). Symptom variation on the trauma symptom checklist for children: a within-scale meta-analytic review. *Journal of Traumatic Stress, 27*, 655-663.
- Martins, C.S., de Carvalho Tofoli, S.M., Von Werne Baes, C., & Juruena, M. (2011). Analysis of the occurrence of early life stress in adult psychiatric patients: A systematic review. *Psychology and Neuroscience, 4*(2), 219-227.
- Mauritz, M.W., Goossens, P.J.J., Draijer, N., & van Achterberg, T. (2013). Prevalence of interpersonal trauma exposure and trauma-related disorders in severe mental illness. *European Journal of Psychotraumatology, 4*. Merza, Papp, & Szabo, 2015;
- Nelson, E.C., et al. (2010). H2 haplotype at chromosome 17q21.31 protects against childhood sexual abuse-associated risk for alcohol consumption and dependence. *Addiction Biology, 15*, 1-11.
- Paolucci, E. O., Genuis, M. L., & Violato, C. (2001). A meta-analysis of the published research on the effects of child sexual abuse. *The Journal of Psychology, 135*(1), 17-36.
- Pietrek, C., Elbert, T., Weierstall, R., Muller, O., & Rockstroh, B. (2013). Childhood adversities in relation to psychiatric disorders. *Psychiatry Research, 206*, 103-110.
- Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The international epidemiology of child sexual abuse: A continuation of Finkelhor (1994). *Child Abuse & Neglect, 33*(6), 331-342.
- Rind, B., Tromovitch, P., & Bauserman, R. (1998). A meta-analytic examination of assumed properties of child sexual abuse using college samples. *Psychol Bull 124*(1):22–53.
- Tonmyr, L., Thornton, T., Draca, J., & Wekerle, C. (2010). A review of childhood maltreatment and adolescent substance use relationship. *Current Psychiatry Reviews, 6*, 223-234.

Wingenfeld, K., Schaffrath, C., Rullkoetter, N., Mensebach, C., Schlosser, N., Beblo, T., Driessen, M., & Meyer, B. (2011). Associations of childhood trauma, trauma in adulthood and previous-year stress with psychopathology in patients with major depression and borderline personality disorder. *Child Abuse and Neglect, 35*, 647-654.

Wosu, A. C., Gelaye, B., & Williams, M.A. (2015). History of childhood sexual abuse and risk of prenatal and postpartum depression or depressive symptoms: an epidemiologic review. *Arch Womens Ment Health, 18*, 659-671.