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.

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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, Guttmann, & 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, & Jurueña, 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 (Martínez, 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 (Martínez, 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\(^1\) 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

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:

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<tr>
<td>1++ (high)</td>
<td>High quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias</td>
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<tr>
<td>1+ (moderate)</td>
<td>Well-conducted meta-analyses, systematic reviews, or RCTs with a low risk of bias</td>
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<tr>
<td>1- (fair)</td>
<td>Meta-analyses, systematic reviews, or RCTs with a high risk of bias</td>
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<tr>
<td>2++ (high)</td>
<td>High quality systematic reviews of case control or cohort or studies</td>
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<tr>
<td>2+ (moderate)</td>
<td>Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal</td>
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<td>1</td>
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<td>2</td>
<td>(Fair) Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal</td>
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<td>3</td>
<td>Non-analytic studies, e.g. case reports, case series</td>
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<td>4</td>
<td>Expert opinion</td>
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### 4.0 References


