**QUEEN'S
UNIVERSITY
BELFAST**

Prevalence of mental illness among parents of children receiving treatment within child and adolescent mental health services (CAMHS): a scoping review

Campbell, T. C. H., Reupert, A., Sutton, K., Basu, S., Davidson, G., Middeldorp, C. M., Naughton, M., & Maybery, D. (2020). Prevalence of mental illness among parents of children receiving treatment within child and adolescent mental health services (CAMHS): a scoping review. *European Child and Adolescent Psychiatry*. <https://doi.org/10.1007/s00787-020-01502-x>

Published in:
European Child and Adolescent Psychiatry

Document Version:
Peer reviewed version

Queen's University Belfast - Research Portal:
[Link to publication record in Queen's University Belfast Research Portal](#)

Publisher rights

© 2020 Springer-Verlag GmbH Germany, part of Springer Nature. This work is made available online in accordance with the publisher's policies. Please refer to any applicable terms of use of the publisher.

General rights

Copyright for the publications made accessible via the Queen's University Belfast Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The Research Portal is Queen's institutional repository that provides access to Queen's research output. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact openaccess@qub.ac.uk.

Prevalence of mental illness among parents of children receiving treatment within child and adolescent mental health services (CAMHS): A scoping review

Timothy C. H. Campbell^{a,b}, Andrea Reupert^c, Keith Sutton^a, Soumya Basu^{d,e}, Gavin Davidson^f, Christel M. Middeldorp^{g,h,i}, Michael Naughton^{a,j}, and Darryl Maybery^a

^a*Monash Rural Health Warragul, Monash University, Warragul, Australia*

^b*Monash Rural Health Churchill, Monash University, Churchill, Australia*

^c*Krongold Clinic, Faculty of Education, Monash University, Clayton, Australia*

^d*Early in Life Mental Health Services (ELMHS), Monash Health, Berwick, Australia*

^e*School of Psychology and Psychiatry, Monash University, Clayton, Australia*

^f*Queen's University Belfast, School of Social Sciences, Education and Social Work, Belfast, Northern Ireland*

^g*Child Health Research Centre, University of Queensland, Brisbane, Australia*

^h*Child and Youth Mental Health Services, Children's Health Queensland Hospital and Health Services, Brisbane, Australia.*

ⁱ*Vrije University Amsterdam, Department of Biological Psychology, Amsterdam, The Netherlands*

^j*Victorian Department of Health and Human Services, Melbourne, Australia*

Corresponding author: Timothy Campbell

Monash Rural Health Warragul, 2 Sargeant Street, Warragul, VIC 3820, Australia.

Email: tim.campbell@monash.edu

Phone: +61 3 9902 7382

Fax: +61 3 5122 7841

Declarations of interest: none.

Article accepted for publication by *European Child & Adolescent Psychiatry* on 24th February 2020.

Abstract

People affected by mental illness often come from families with patterns of mental illness that span across generations. Hence, child and adolescent mental health services (CAMHS) likely provide treatment to many children with parents who also experience mental illness. The aim of this scoping review was to: (1) identify the prevalence of mental illness among parents of children in CAMHS; (2) identify and appraise the methodologies that have been implemented to assess the prevalence of parental mental illness in CAMHS; (3) identify additional circumstances associated with families where both parent and child experience mental illness; and (4) present recommendations that have been made for CAMHS practice based on these findings. English language, peer-reviewed studies (2010-2018) that had investigated the mental health of parents in CAMHS were included in the review. Literature searching yielded eighteen studies which were found to have utilised diverse methodologies to assess parental mental health. Overall, reported prevalence of parental mental illness ranged from 16%-79%; however, a single study that was deemed to be comprehensive reported prevalence rates of 36% for mothers and 33% for fathers. Across studies, parent and child mental illness was found to be associated with additional adversities impacting family functioning and wellbeing. For children who receive treatment for mental illness, having a parent who also experiences mental illness is a frequent family circumstance that has implications for their prospects for recovery. Accordingly, the mental health of parents should be an important consideration within the mental health care CAMHS provide to children.

Keywords: Parental mental illness; child psychiatry; psychiatry practice; child and adolescent mental health services (CAMHS); mental illness prevalence; scoping review.

The relationship between parental mental illness and children's mental illness

The mental health and wellbeing of children is intimately related to the mental health of their parents. Having a parent with a major mental illness is a key risk factor for disorder and impairment in offspring [1]. Mechanisms underlying the relationship between parent and child mental illness include both genetic and environmental factors. Heritability explains a large part of the parent-offspring association, having been estimated to range from 40% up to 80% depending on the type of psychopathology [2]. Environmental factors include the effects of mental illness on parenting capacity and potential for exposure to trauma or inadequate care [3]. Risk for mental illness in offspring has been found for many disorders in parents, including anxiety [4], depression [5], bipolar disorder [6], borderline personality disorder [7], and schizophrenia [8]. Though there is some evidence of concordance in the diagnoses of parent and child [9-10], the prevailing perspective is that the presence of a mental illness in a parent is associated with a higher risk of mental illness for their child across the spectrum of diagnosable disorders [3, 11]. It has been estimated that up to 45% of clients in adult mental health services are parents with children [12], and that 21-23% of children live in families where at least one parent has a mental health condition [13]. The prevalence of childhood mental illness within the general population is estimated to be somewhere between 10-20% [14-15]; however, among children whose parents have a mental illness, the risk of developing mental disorder increases substantially to between 41% and 77% [16].

Much of the research that has explored mental health across generations in families has focused on the transmission of mental health problems from parent to child. However, conversely, circumstances of having a child who experiences mental illness may also lead to parents being more acutely vulnerable to developing mental illnesses [17-18]. The burden of caring for a child experiencing mental illness, which can include fatigue, worry, grief, financial strains, negative impacts on relationships and work life, feelings of responsibility for the development of their child's condition, and perceptions of stigma, place significant pressures on the mental health of parents [19]. In turn, the deterioration of a parent's mental health in the context of caring for a mentally ill child is likely to be detrimental to their ongoing capacity to support their child in recovering from their condition [20].

Treatment outcomes for children when a parent also experiences mental illness

The parent-offspring association for mental illness suggests that child and adolescent mental health services (CAMHS) are likely to provide treatment to a considerable number of children being raised by parents who also experience mental health problems. While parental mental illness is well recognised to have implications for the likelihood of a child developing mental illness, there is also some evidence suggesting that

it has implications for a child's response to treatment for their own mental illness. For instance, high levels of parent psychopathology were associated with reduced treatment retention in CAMHS [21]. Maternal depression and paternal substance abuse have been each found to diminish the therapeutic effectiveness of otherwise empirically-supported interventions for conduct disorders [22]. Similarly, children whose mothers also experience mental illness have been found to make less gains from the beginning of therapy to a three-month follow-up compared to children receiving mental health treatment whose mothers did not have a mental illness [23]. A randomised control trial of a cognitive behavioural program to prevent depressive episodes in offspring of parents with depressive disorder found that the intervention was only effective when parents' depression was historical at the time of treatment; children whose parents were depressed at the time did not respond to the intervention [24]. Children referred to psychiatric outpatient clinics whose parents scored above a subclinical threshold for psychiatric symptoms typically present with more severe psychiatric symptoms themselves compared with children whose parents scored in a normal range [25]. Although the two groups demonstrated a similar rate of symptom improvement over the course of treatment, the significantly greater severity of psychiatric symptoms in children of parents with high psychiatric symptomology was still evident more than a year-and-a-half later.

Study aim and research questions

As a critical determinant of mental wellbeing in childhood the status of parental mental health is an important consideration in understanding background adversity, planning intervention, and supporting recovery for children experiencing mental illness. A knowledge of the prevalence of mental illness among parents of children attending CAMHS contributes to understanding the circumstances children within these services live in, and can inform practice and resource allocation to better respond to these circumstances. Furthermore, a knowledge of the prevalence of mental illness among parents of children in CAMHS also contributes to understanding the mental health risk associated with carer burden and, in particular, the responsibility of parenting a child with mental illness.

The aim in this review was to investigate the extent of research that has measured the prevalence of mental illness among parents of children receiving treatment in CAMHS. To our knowledge, this is the first literature review of the prevalence of parental mental illness in CAMHS. Accordingly, this review took the form of a scoping review [26-27] implementing a systematic methodology to provide a preliminary assessment of the quantity, quality, and key characteristics of study design of available research. Four primary research questions framed the review:

- 1) What is the prevalence of mental illness among parents of children receiving treatment in CAMHS?
- 2) What research methodologies have been employed to assess the prevalence of mental illness among parents of children receiving treatment in CAMHS? How robust are they?
- 3) What additional circumstances are associated with families where both parent and child have a mental illness?
- 4) What recommendations for practice have been made in relation to mental illness among parents of children receiving treatment in CAMHS?

Method

Review framework

This review adhered with the Condition-Context-Population (CoCoPop) framework recommended for reviews of prevalence and incidence data in the Joanna Briggs Institute (JBI) Reviewer Manual [28; see section 5.5.4]¹. For the purposes of the review, *mental illness* was defined as a health condition that impacts a person's emotion, thinking, or behaviour, which cause them personal distress or impairs their capacity to function adaptively [29]. Substance abuse problems were also included within the definition of mental illness adopted. CAMHS were defined as those services that specifically assess and/or treat young people aged 0-18 years who experience emotional, behavioural, and/or mental health difficulties. The term *child* was defined as being aged less than eighteen years. Studies that investigated samples including adult-aged offspring were not included in the review. The term *parent* was defined as a person providing primary care for the child, as either a biological or non-biological parent, including step-parents, adoptive-parents, and other types of guardian-parent relationships [30]. The review included studies where parents' mental illness had been self-reported, documented in case notes, had been clinically diagnosed, or empirically measured. Furthermore, studies were included in the review whether the reported mental illness of the parent was identified as current or historical.

Inclusion criteria

Peer-reviewed studies that reported primary data in English were eligible for inclusion in the review. A publication date-range of 2010-2018 was applied to the literature search with an intention to limit the review to studies that had investigated CAMHS within current diagnostic/conceptual frameworks of mental health.

¹ Parties interested in accessing the protocol for the review, which was developed by the primary research team in the study, can do so via contacting the corresponding author.

Exclusion criteria

Articles that had not been peer-reviewed (e.g. book chapters; grey literature), that included only secondary data, or that were otherwise opinion pieces, were excluded. Studies that investigated parental mental health within perinatal units were not included because the primary reason for engaging the infant in these services is due to the mother's mental health condition.

Literature search

A literature search of six academic journal databases (PsycINFO, Medline(R)+Epub, Embase, Scopus, Web of Science, CINAHL+) was completed in September 2018. The search-term structure used is detailed in Table 1. Manual searches of citations within eligible studies were conducted to identify additional studies potentially suitable for inclusion. Database search results were collated in Endnote and duplicate records removed. Records were then exported into Rayyan QCRI [31], an online software application designed to assist with systematic review projects, for screening.

Table 1 Example of the structured search used for database literature searches*

Search 1: (parent* or mother or father or maternal or paternal or caregiver or guardian or carer)
Search 2: (mental adj (health or disorder* or illness*))
Search 3: (psych* adj (health or illness* or disorder* or problem*))
Search 4: (schizo* or psychos* or paranoi* or borderline personality disorder or bipolar or manic or dysthym* or mood or depress* or anxiety or phobi* or panic or agoraphob* or posttraumatic stress or post traumatic stress or ptsd or obsessive compulsive or ocd or antisocial or eating disorder or anorexia nervosa or bulimi* or self harm or suicid* or drug* or polydrug or "substance use" or substance abuse or alcohol* or tranquili* or narcot* or opiate* or street drug* or solvent* or inhalant* or intoxi*)
Search 5: 2 or 3 or 4
Search 6: (prevalence or incidence or rate*)
Search 7: ((service* or clinic*) adj7 (child* or youth or young person or offspring or pediatric or paediatric or adolescen* or behav*))
Search 8: 1 and 5 and 6 and 7

*Note: The search terms presented here were adapted as required for each of the databases searched in the literature review.

Review procedures

The literature review was conducted by a group of eight researchers, comprising a four-member primary research team (authors TC, DM, AR, and KS) who collaborated with a four-member panel with expertise (ten or more years of practice or research experience) in CAMHS and inter-generational mental health (authors SB, GD, CM, and MN). Procedures were arranged so that at each stage of the review every included study was assessed by two reviewers working blind to one another, and whose perspectives could subsequently be compared and contrasted². Where there were differences in assessment between the paired reviewers, a consensus was achieved through discussion between the two reviewers and, on occasion, with input from the lead reviewer of the study. The primary research team completed three phases of eligibility screening: (1) title and abstract assessment; (2) review of full-text; and (3) review of full-text during initial data extraction.

The final phase of data extraction involved the entire research team. Members of the expert panel were paired with the members of the primary research team that undertook the initial screening. The expert panel members worked independently from the primary research team to extract data from the studies they were allocated. The data extracts of the expert panel were then compared and contrasted to the original data extracts of the primary research team. Data were collated into a standard spreadsheet organised into the following structure:

- Bibliographic information
- Country of origin
- Research aims
- Sample characteristics
- Description of the CAMHS investigated
- Child mental health (diagnoses investigated; measures used)
- Parent mental health (diagnoses investigated; measures used)
- Reported prevalence of parental mental health
- Strengths and limitations of the research methodology
- Summary of findings/conclusions pertaining to family circumstances
- Summary of findings/conclusions pertaining to CAMHS practices

² It was recognised that included among studies identified in the literature review were some that members of the research team were authors on. The lead researcher coordinated the allocation of studies to ensure that, in all stages of the review, members of the research team were not allocated their own authored works to review.

- Additional notes and references

The extracted data were summarised by the primary research team. To appraise the approaches employed by each study to assess the prevalence of parental mental illness, a matrix to categorise studies by methodology was developed by the expert panel. This assessment process categorised studies by whether the methodology had involved: (1) a focus on a specific mental health condition or a limited range of mental health conditions; (2) a general measure of mental health; or (3) a comprehensive assessment of mental health.

Definitions for the three categories, applicable to both the parent and child axes of the appraisal matrix, were:

- 1) *Focus on a specific mental health condition(s)*. The study focused on a limited subset of mental health conditions, in either the parent or child, or in both; the study did not investigate broadly across the range of diagnoses for mental disorder.
- 2) *General assessment of mental health*. The study investigated broadly across the range of diagnoses for mental disorder in both parent and child, but in an undetailed way. This might include for example, an approach which provides a basic indication of the presence of a mental health problem (e.g. a binary ‘yes-or-no’ interview question in relation to the presence of a parental mental illness). It might also include little information given regarding how the diagnosis was identified (e.g. data sourced from a case-note audit but no further details included in relation to how the service arrived at the information recorded); the sourced data reported in the study was potentially based on a comprehensive method of assessment, but there was insufficient information provided about the origins of the diagnosis to verify that a comprehensive assessment had occurred.
- 3) *Comprehensive assessment of mental health*. The study investigated broadly across the range of diagnoses for mental disorder in both child and parent utilising an established measure of mental health. The measure employed might either be a formal assessment typically used in clinical practice, a psychometrically validated scale designed to screen for the presence of mental illnesses, or there was sufficient information reported to identify that a comprehensive assessment had occurred.

The primary research team independently categorised each study according to the appraisal matrix and then met to organise the data summaries and reach a consensus on the categorisation of studies. The expert panel

were subsequently presented with the summarised data and appraisal matrix, and invited to provide input to refine the summary and categorisation of studies.

Results

The flowchart in Figure 1 illustrates the process of screening and data extraction undertaken in the review. Overall, 18 studies [32-49] were identified to have reported on the prevalence of mental illness among parents of children receiving treatment in CAMHS.

Screening of records

Initial screening of the 2,993 records identified in the literature search resulted in 2,920 records deemed not relevant to the review. The full texts of the 73 retained studies were each further screened for eligibility by assigned pairs of researchers, resulting in agreement between the assessments of reviewer pairs for 55 (75%) of the studies (21 deemed eligible; 34 deemed ineligible). In the 18 cases where initial assessments conflicted, the assessing reviewers' resolved to retain eight of the papers and to remove the remaining ten from consideration. Reasons for exclusion at this stage were due to not meeting literature review criteria for sampling (28 studies), for reporting on parental mental illness (14 studies), for article-type (1 study), and for language (1 study). An additional five studies were included following manual searches of the reference lists of each of the 29 eligible papers and subsequent reviewing by the research team.

Further consideration regarding eligibility during the data extraction process flagged 16 studies for exclusion, with consensus reached between reviewers to exclude each of these papers. Reasons for exclusion at this stage were because the service investigated also provided treatment to children for health conditions other than mental illnesses (9 studies), parental mental illness was not reported in sufficient detail (4 studies), the same data-set had been used in another eligible study (2 studies), and concerns about the quality of reporting (1 study). Subsequently, 18 studies were assessed to be eligible for inclusion in the final literature review. Summaries of the reviewed studies, including sampling, research methods, reported prevalence, other reported family circumstances, and recommendations for practice, are presented in Tables 1-6.

Reported prevalence of mental illness among parents of children attending CAMHS

Across the 18 eligible studies, the reported prevalence of mental illness among parents of children attending CAMHS was framed in five distinct ways. Framing of the prevalence of parental mental illness was largely dependent on the purposes of the study and research methods employed. Studies reported on prevalence of mental illness, in general, among parents of children in CAMHS [32-33] (see Table 2) or reported on the number of children attending CAMHS who had at least one parent with a mental illness [34-39] (see Table 3).

Other studies had a focus on prevalence rates in relation to specific mental illnesses, either in the parent [40] (see Table 4) or the child [41-43] (see Table 5). Finally, some studies reported the number of parents with a specific mental illness who had children attending CAMHS with a specific mental illness [44-49] (see Table 6).

Overall, among studies that investigated parental mental health broadly across conditions (see Tables 2 and 3), reported prevalence rates ranged from 16% [39] to 79% [32].

Fig. 1 Flowchart of identified records and included studies at each stage of the literature review (adapted from the PRISMA Flowchart [50]).

Table 2 Studies that reported how many parents of children attending CAMHS had a mental illness

Wesseldijk et al. (2018) [33]	The Netherlands	1,805 mothers 1,361 fathers 1,866 children 4 CAMHS	Adult Self Report (ASR)	35.7% of mothers 32.8% of fathers	Risk of unemployment; high rate of single-parent families	Parent mental health screening in CAMHS; integration of child and adult mental health care
-------------------------------	-----------------	---	-------------------------	--------------------------------------	---	---

Note. MI = mental illness.

Table 3 Studies that reported how many children attending CAMHS had at least one parent with a mental illness

Study	Location	Sampling	Measure of parent MI	Prevalence	Family circumstances	Practice recommendations
Baker & Lees (2014) [34]	Canada	78 families 1 CAMHS (further sample details not reported)	Clinician interview developed by the researchers	71% of cases (diagnosed or suspected)	Families typically reported that a lack of supports hindered their capacity to cope	Parent mental health screening in CAMHS; family-focussed training for clinicians
Gatsou et al. (2016) [35]	UK	100 children 1 CAMHS (number of parents not reported)	Case-note audit	40% of cases (in an additional 32% of cases there was no clinical record indicating either way regarding parent's mental health)		Review and improve procedures for assessing, recording, and responding to parental mental illness and its impacts on the child
Golhar & Srinath (2013) [36]	India	374 children 1 CAMHS (number of parents not reported)	Parent Interview Schedule (PIS)	30.6% of cases		Parental mental illness and physical abuse needs to be specifically addressed
Huemer, Völkl-Kernstock, Yee, Bruckner, & Skala (2016) [37]	Austria	2,510 children 1 CAMHS (number of parents not reported)	Case-note audit	31.8% of cases		Develop interventions for children targeted at traumatic experiences (which includes having a parent with a mental illness)
Reay et al. (2015) [38]	Australia	176 parents 6 guardians 151 children 1 CAMHS	Parent questionnaire and clinician interview developed by the researchers	24.8% of cases (an additional 14% of cases involved drug or alcohol problems)	Risk of family conflict, financial hardship, bereavement, substance problems, serious illness or injury to a household member	Screen children for traumas (including parental mental illnesses); adopt trauma-focussed interventions
Robson & Gingell (2012) [39]	UK	322 children (number of parents not reported)	Case-note audit	16% of cases (identified as potential cases)		Close professional liaison between child and adult mental health services; family-focussed approach to mental health care

Table 4 Studies that reported how many parents of children attending CAMHS had a specific mental illness

Study	Location	Sampling	Parent MI	Measure of parent MI	Prevalence	Family circumstances	Practice recommendations
Swartz, Henry, & Hefferen (2014) [40]	USA	581 caregivers 581 children 1 CAMHS	Depression	Patient Health Questionnaire (PHQ-9)	40% of parents	Parents may be more inclined to seek mental health care for their child than for themselves	CAMHS may be important locations in which to identify and potentially treat depressed caregivers; parents were generally supportive of the screening process

Table 5 Studies that reported how many parents of children attending CAMHS for a specific mental illness had a mental illness

Study	Location	Sampling	Child MI	Measure of parent MI	Prevalence		Family circumstances	Practice recommendations
Guilé et al. (2016) [41]	Canada	58 children 1 CAMHS (number of parents not reported)	<i>Depression with Borderline Personality Disorder (BPD) traits compared with Depression without BPD traits</i>	Case-note audit	<i>Child with BPD traits</i> Mothers: 30% Mood disorder 20% Delinquency / drug abuse / personality disorder Fathers: 7% Mood disorder 23% Delinquency / drug abuse / personality disorder	<i>Child without BPD traits</i> Mothers: 39% Mood disorder 4% Delinquency / drug abuse / personality disorder Fathers: 4% Mood disorder 4% Delinquency / drug abuse / personality disorder	BPD traits in children are associated with disrupted family environments and intense conflict among family members	Family-focused approaches to intervention in cases where children present with BPD traits
Jayaprakash, Rajamohanan, & Anil (2014) [42]	India	60 children 1 CAMHS (number of parents not reported)	Conduct Disorder	Parent Interview Schedule (PIS)	55% of parents		High rates of alcoholism and domestic violence, single-parent families; deficits in parenting capacity	
Yu, Chung, Lee, Lam, & Yiu (2016) [43]	Hong Kong	121 mothers 121 children 1 CAMHS (study limited to maternal mental health)	Attention Deficit Hyperactivity Disorder (ADHD)	Chinese-Bilingual Structured Clinical Interview (CB-SCID-I/P)	29.8% of mothers (point prevalence) 39.7% of mothers (lifetime prevalence)		High rates of single-parent families, low income; less social support	Assessment of children with ADHD should also include an assessment of their mother's psychosocial profile

Table 6 Studies that reported how many parents of children attending CAMHS for a specific mental illness had a specific mental illness

Study	Location	Sampling	Child MI	Parent MI	Measure of parent MI	Prevalence	Family circumstances	Practice recommendations
Agha, Zammit, Thapar, & Langley (2013) [44]	UK	546 mothers 280 fathers 570 children (number of CAMHS not reported)	ADHD	ADHD	ADHD symptom scale developed by the researchers	29% of parents	ADHD may impede parents' capacities to function as a parent	Parent mental health screening in CAMHS
Dentz, Romo, Konofal, & Parent (2016) [45]	France	40 mothers 20 fathers 60 children 1 CAMHS	ADHD	ADHD	Adult Self-Report Scale (ASRS) and Wender Utah Rating Scale-25 (WURS-25)	22.5% of parents (likely current) 21.7% of parents (likely in childhood)	ADHD may impede parents' capacities to function as a parent, socially, and occupationally	Parent mental health screening in CAMHS; implement parenting skills training as an intervention
Gopalan, Dean-Assael, Klingenstein, Chacko, & Mckay (2016) [46]	USA	188 mothers 21 fathers 17 other carers 212 children 12 CAMHS	Oppositional Defiant Disorder Conduct Disorder	Depression	Center for Epidemiological Studies-Depression Scale (CES-D)	56.6% of parents	Low levels of socio-economic status, including income and education; impacted by stigma	Target caregiver depression to augment treatment of child disruptive behavioural problems
Khasakhala, Ndeti, Mathai, & Harder (2011) [47]	Kenya	226 mothers 202 fathers 245 children 1 CAMHS	Depression compared with <i>Other MI</i>	Depression	Mini International Neuropsychiatric Interview for Adults (MINI Plus)	<i>Child Depression</i> 57.1% of mothers 47.4% of fathers <i>Child Other MI</i> 42.9% of mothers 52.6% fathers	Parents likely to be perceived by their child to engage in rejecting behaviours toward them	
Sundarlall, Van der Westhuizen, & Fletcher (2013) [48]	South Africa	57 mothers 24 fathers 81 children 1 CAMHS	ADHD	ADHD	Adult Self-Report Scale (ASRS)	22% of parents	ADHD may impede parents' capacities to function as a parent, socially, and occupationally	Refer parents for psychiatric assessment and parent management training
Takeda et al. (2010) [49]	USA	323 mothers 323 fathers 323 children (number of CAMHS not reported)	ADHD	ADHD	Adult Self-Report Scale (ASRS)	27% of mothers 23% of fathers	Both child and parent's ADHD symptoms are typically severe	Screen parents for ADHD when child has a ADHD diagnosis

Appraisal of comprehensiveness for measuring the prevalence of parental mental illness

Table 7 presents the appraisal of the comprehensiveness of each study's methodology for assessing parental mental illness conducted by the review team. The appraisal concluded that one study, by Wesseldijk et al. [33], had conducted a comprehensive mental health assessment of the prevalence of mental illness among parents of children attending CAMHS. This study utilised the Adult Self Report (ASR) questionnaire, part of the Achenbach system of empirically based assessment (ASEBA), to investigate parental mental health in CAMHS and reported the prevalence of mental illness to be 35.7% for mothers, and 32.8% for fathers.

Table 7 Studies categorised by the methodological approach adopted for assessing the prevalence of mental illness among parents of children attending CAMHS

		Approach to investigation of parent mental health		
		Focus on a specific mental health condition	General assessment of mental health	Comprehensive assessment of mental health
Approach to investigation of child mental health	Focus on a specific mental health condition	Agha et al. [44] Dentz et al. [45] Gopalan et al. [46] Khasakhala et al. [47] Sundarlall et al. [48] Takeda et al. [49]	Guilé et al. [41] Jayaprakash et al. [42] Yu et al. [43]	
	General assessment of mental health	Swartz et al. [40]	Naughton et al. [32] Baker & Lees [34] Gatsou et al. [35] Huemer et al. [37] Reay et al. [38] Robson & Gingell [39]	Golhar & Srinath [36]
	Comprehensive assessment of mental health			Wesseldijk et al. [33]

Discussion

This scoping review found that the prevalence of mental illness among parents of children receiving treatment in CAMHS ranged widely, from 16% up to 79%, across 18 studies identified to have reported on the topic. The single comprehensive assessment of prevalence [33] identified in the review suggested that mental illness affects around one in three parents, similarly across both mothers and fathers, in CAMHS. Furthermore, a quarter of the studies reviewed ($n = 5$) reported that prevalence exceeded 50% [32, 34, 42, 46, 47], suggesting that the majority of parents assessed in these studies are themselves in need of mental health care. In this light, the number of cases in which CAMHS provide treatment to children from families impacted by parental mental illness can be described as considerable.

Across the reviewed studies, many different research questions were investigated, and many different research methods were utilised. Establishing the prevalence of mental illness among parents of children in CAMHS was not typically the primary research aim and some studies used more rigorous procedures than others to arrive at their estimate. Studies were variously focused on children, on parents, on clinicians, on specific domains of mental health and disorder, and on service provision. These differing points of focus, largely determined by the diversity in primary research aims, are likely to contribute greatly to the wide-ranging prevalence reported. This scoping review highlights a number of methodological considerations for investigations of parental mental health within CAMHS which, additionally, have application for similar studies of prevalence in other child services, such as schools and welfare agencies that provide family services or out-of-home care.

Characteristics of research that has investigated parental mental health in CAMHS

Approaches to sampling in CAMHS. Although all samples were recruited from CAMHS, there was variation in how cohorts of parents and children were established across studies. These sampling differences affect how representative they are of populations of both children and parents in CAMHS, and the levels of precision in studies for estimating the prevalence of parental mental illness.

Sampling of parents. Many studies included an interview or survey of one parent only, which was typically completed by the mother. Fathers were considerably under-represented in many samples and Yu et al. [43] investigated maternal mental health exclusively. Furthermore, the high numbers of single-parent families (e.g. 69%, Naughton et al. [32]; 59%, Agha et al. [44]) and children living in alternate-care arrangements (e.g. 13%, Naughton et al. [32]; 7%, Huemer et al. [37]) were identified as impediments to collating mental health information for both parents of a child. An absence of a mental health status for a parent in circumstances of

relationship breakdown and living separately from children, which is a predictor of mental illness in both fathers [51] and mothers [52], is likely to result in underestimations of the prevalence of parental mental illness in CAMHS. Other sampling issues observed in some studies, such as narrow inclusion criteria (e.g. Takeda et al. [49]) and samples differing from national norms on demographic characteristics (e.g. Wesseldijk et al. [33]) highlight the potential for findings to be influenced by response-biases, and again, a possible underestimation of the prevalence of parental mental illness.

Sampling of children. In nine of the reviewed studies, samples were limited to children diagnosed with a specific condition of interest to the researchers, notably ADHD. Prevalence and concordance rates in relation to specific disorders make useful contributions for understanding the relationship between the mental health of child and parent in CAMHS; however, there are evident limitations in these studies for drawing conclusions about parental mental illness in CAMHS beyond those disorders explored. It is noteworthy that Wesseldijk et al.'s [33] results indicate that, outside of a concordance found between parent and child ADHD, a broad spectrum relationship exists between the type of mental illness experienced by a parent and the type experienced by the child.

Sampling of CAMHS. Though the number of CAMHS investigated was not always reported (e.g. Agha et al. [44]; Takeda et al. [49]), samples were most commonly recruited from a single service ($n = 13$ studies). The highest parent mental illness prevalence rates were found in single-CAMHS studies (e.g. 79%, Naughton et al. [32]; 71%, Baker & Lees [34]), but a caveat is that unique factors relevant to the particular CAMHS investigated, such as characteristics of the local community they operate within, may explain these figures and limit how generalisable they can be considered. The provision of descriptive information in relation to the CAMHS included in studies was not uniform, with some specifically naming the services investigated, and others providing undetailed geographical descriptions of where services were situated. CAMHS were represented in multiple studies across each continent except for South America, but were predominantly from developed nations.

Approaches to measurement of parental mental health. Parental mental health was assessed using a variety of methods across studies. These different approaches have implications for how complete and reliable the measurements of prevalence of mental illness can be considered.

Categorisation of mental health. As detailed previously, a number of studies were focused on a single mental health condition, or a narrow range of mental health conditions, in parents. Conversely, some studies adopted broad perspectives on mental health, and included non-diagnostic problems alongside formally

recognised mental illnesses. For instance, Golhar and Srinath [36] included *deviance* and Jayaprakash et al. [42] included *domestic violence* among the mental health conditions they reported on. Similarly, Guilé et al. [41] included *delinquency* among mental health conditions, which they collapsed into a single category with drug abuse and personality disorder.

Case-note audits. Although case-note auditing, utilised in five of the reviewed studies, is arguably the easiest approach to investigating for parental mental illness in CAMHS, a weakness commonly identified was the varying levels of completeness and accuracy of records. It was often unclear how a parental mental illness had been identified by CAMHS, and whether the identified mental illness had been formally diagnosed. In other studies (e.g. Golhar & Srinath [36]; Huemer et al. [37]; Reay et al. [38]; Jayaprakash et al. [42]) details of mental illnesses among parents, such as breakdown by diagnosis and whether the condition was current or historical, were not included. These issues may reflect limitations in the depth and consistency of detail recorded in CAMHS case-notes in relation to parent mental health status that can be extracted for research purposes. For example, Gatsou et al.'s [35] case-note audit found that there was no documentation on parents' mental health to conclude either way regarding the presence or absence of mental illness in 32% of cases. Furthermore, Robson and Gingell [39] found evidence in case-notes that some parents may be disinclined to reveal or discuss their own mental health problems to CAMHS clinicians in the presence of their child.

Interviewing and self-report questionnaires. There are well-recognised limitations inherently associated with self-reporting of mental health symptoms whether through interviews (utilised in 6 studies) or questionnaires (utilised in 10 studies), including voluntary participation [53] and potential for response biases [54]. A strength recognised in studies by Yu et al. [43] and Dentz et al. [45] was the inclusion of self-report measures of both retrospective and current mental health problems in parents.

Recognising and responding to parental mental illness in CAMHS

Additionally, this scoping review brought together research that contributes to understanding the needs of many children that CAMHS provide services to, as well as those of their parents and families. These understandings have utility for improving policy and practice in CAMHS to more effectively engage with and assist families seeking mental health care for children.

Family circumstances when a parent also experiences mental illness. Few papers collected data that provided additional description of the challenges and needs experienced by families where both parent and child experienced mental illness. Of those studies that did, some reported the number of families experiencing various adversities, while others compared the prevalence of various adversities between families where a parent had a

mental illness, and families that did not. Families where both a parent and child experienced mental illness were found to be impacted by an array of difficulties, including unemployment, financial hardship, substance-use problems, bereavement, stressful life-events, and serious illness or injury to a household member (Reay et al. [38]; Wesseldijk et al. [33]; Yu et al. [43]). Naughton et al. [32] found that almost all families where both a parent and child experienced mental illness reported having poor or minimal social supports to draw upon. In interviews conducted by Baker and Lees [39], parents identified a lack of support as a key factor that hindered family's coping capacities. Various indicators of family dysfunction, including inadequate or distorted communication within the family (Jayaprakash et al. [42]), family conflict and breakdown (Reay et al. [38]), intimate-partner violence (Naughton et al. [32]), and physical abuse to the child (Golhar & Srinath [36]; Jayaprakash et al. [42]) were associated with the presence of mental illness among parents of children presenting at CAMHS.

In addition to mental illness, information about parents' functioning was explored in some studies. Sundarlall et al. [48] found that parents who had ADHD experienced impairments that impeded their work performance, self-concept, life-skills, and social functioning. The impacts of mental illness on parenting behaviours and capacity to support a child with mental illness was a particular focus. Golhar and Srinath [36] and Jayaprakash et al. [42] found parental supervision was inadequate in many families where both parent and child experience mental illness. Khasakhala et al. [47] found that children in CAMHS were more likely to perceive their mothers' parenting style as rejecting in cases where mothers also had mental illness.

Recommendations for CAMHS practices when a parent also experiences mental illness. Many papers stressed the need for CAMHS to identify cases where parents experienced mental illness and advocated for screening the mental health of both mothers and fathers upon a child's presentation at the service, for the benefit of both child and parent. Naughton et al. [32], Robson and Gingell [39], and Sundarlall et al. [48] suggested that parent mental health screening should be an integrated part of assessment procedures to identify family risk factors and support needs. Schwartz et al. [40] concluded that, although many depressed parents will seek services to provide care for their children experiencing mental illness, they often do not seek mental health services for themselves. Accordingly, Schwartz et al. [40] asserted that child presentations at CAMHS are potentially an entry-point for engaging with adults (parents) who experience, or are vulnerable to experiencing, mental health problems that are otherwise going unrecognised and untreated. Swartz et al. [40], Wesseldijk, et al. [33], and Yu et al. [43] argued that the best location and time to screen parents' mental health is in the CAMHS at the time their child is assessed.

The need for inter-agency collaboration was recommended in a number of studies. Gatsou et al. [35] and Wesseldijk et al. [33] concluded that there is a need to bridge the gap between child and adult mental health services to better care for the family as a whole. Similarly, Robson and Gingell [39] suggested that strategies to integrate child and adult mental health services to establish a family-focused approach to treatment, implemented at national levels that oversee the delivery of mental health care, are needed. Two papers sought evidence for existing inter-agency collaboration within CAMHS practices. Robson and Gingell [39] found that 14.2% of cases where both parent and child had a mental illness contained evidence of collaboration between the CAMHS and services working with the parent. Gatsou et al. [35] found that referral to other agencies for family interventions occurred in 27.5% of cases where it was identified that a parent was also experiencing mental health issues.

A common perspective across studies was that parental mental health needed to be considered in treatment plans for children. Baker and Lees [34] and Gatsou et al. [35] suggested that clinicians should be trained to recognise the interplay between a child and parent's illness. Baker and Lees [34] asserted that CAMHS clinicians should make recommendations for the family's own self-care as part of their practice. Robson and Gingell [39] and Agha et al. [44] took the position that whole-of-family interventions may be most appropriate when multiple family members experience mental illness. Dentz et al. [45] and Sundarlall et al. [48] suggested that interventions focused on developing and supporting parents' capacities to carry out their parental role should be provided, which would then confer benefit to the child. However, as asserted by Wesseldijk et al. [33], there is presently a need for research to determine the most effective response in these circumstances and whether intervention should be focused primarily on the parent, the child, or should otherwise address parent's and children's conditions independently.

Limitations of the current literature review

An important consideration in relation to this review is that the majority of studies included were not primarily concerned with determining the prevalence of mental illness among parents of children in CAMHS. Hence, the research methods implemented in these studies were designed for other purposes and not necessarily to optimally measure the prevalence of parental mental illness. Given the diversity observed in relation to the points of focus and methodologies employed across studies, a meta-analysis to arrive at a statistically-derived estimate of the prevalence of mental illness among parents of children in CAMHS, was not appropriate. Further limitations of the current review include the language and timeframe limits applied to the literature search, and

the exclusion of grey literature, which may have resulted in the omission of studies potentially relevant to a review of this topic.

Concluding comments

The diversity of studies identified precluded an integration of results to present a consolidated prevalence rate of mental illness among parents of children in CAMHS, which highlights the need for further well-designed research that examines this question. However, what can be asserted from the existing literature is that it is apparent that a great number of children receiving treatment for mental illness in CAMHS live with parents who experience mental illness themselves, and that they endure additional adversities associated with their family circumstances. Another angle on the findings is that parenting a child with mental illness is evidently a risk factor for mental illness among adults, and that a considerable number of parents presenting children for mental health care at CAMHS are likewise themselves in need of mental health care. A central theme emerging from this review is that systemic changes are necessary to organise mental health care in a way that is sensitive to the interdependent nature of parent and child mental health, and the family context in which mental illness and recovery occurs. At a service level, for CAMHS and its clinicians, actively engaging with parents and their mental health appears to be an opportunity, which has perhaps been under-appreciated in many services up to this point, to enhance mental health care for children who experience mental illness. In light of the findings in this review, as a standard component of treatment of children's mental illnesses, CAMHS should have practices in place that ensure cases involving parental mental illness are consistently identified, and that also ensure the typically complex needs of children and their families living in these circumstances are attended to.

Role of Funding Sources: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Contributors: Authors TC, DM, AR, and KS were members of the core review team, and collaborated on the design of the review process, conducted literature searches, and completed reviews of literature. Author TC coordinated the review process. Authors SB, GD, CM, and MN were invited to contribute as members of an expert review team and completed reviews of literature. Author TC wrote the first draft of the manuscript and all authors contributed to, and have approved, the final manuscript.

Conflict of Interest: All authors declare that they have no conflicts of interest.

Acknowledgements: The authors wish to thank Penny Presta, subject librarian at Monash University Hargrave-Andrew Library, Clayton, Australia, who assisted with structuring the literature search implemented in this study. This research was supported by an Australian Government Research Training Program (RTP) Scholarship.

References

1. Achtergarde S, Postert C, Wessing I, Romer G, Müller JM (2015) Parenting and child mental health: Influences of parent personality, child temperament, and their interaction. *Fam J* 23(2):167-179. <https://doi:10.1177/1066480714564316>
2. Polderman TJ, Benyamin B, De Leeuw CA, Sullivan PF, Van Bochoven A, Visscher PM, Posthuma D (2015) Meta-analysis of the heritability of human traits based on fifty years of twin studies. *Nat Genet* 47(7):702-709. <https://doi:10.1038/ng.3285>
3. Reupert AE, Maybery D, Kowalenko NM (2012) Children whose parents have a mental illness: prevalence, need and treatment. *Med J Aust* 199(3):7-9. <https://doi:10.5694/mja11.11200>
4. Beidel DC, Turner SM (1997) At risk for anxiety: I. Psychopathology in the offspring of anxious parents. *J Am Acad Child Adolesc Psychiatry* 36(7):918-924. <https://doi:10.1097/00004583-199707000-00013>
5. Lieb R, Isensee B, Höfler M, Pfister H, Wittchen HU (2002) Parental major depression and the risk of depression and other mental disorders in offspring: A prospective-longitudinal community study. *Arch Gen Psychiatry* 59(4):365-374. <https://doi:10.1001/archpsyc.59.4.365>
6. DelBello MP, Geller B (2001) Review of studies of child and adolescent offspring of bipolar parents. *Bipolar Disord* 3(6):325-334. <https://doi:10.1034/j.1399-5618.2001.30607.x>
7. Weiss M, Zerkowicz P, Feldman RB, Vogel J, Heyman M, Paris J (1996) Psychopathology in offspring of mothers with borderline personality disorder: A pilot study. *Can J Psychiatry* 41(5):285-290. <https://doi:10.1177/070674379604100505>
8. Wan MW, Abel KM, Green J (2008) The transmission of risk to children from mothers with schizophrenia: A developmental psychopathology model. *Clin Psychol Rev* 28(4):613-637. <https://doi:10.1016/j.cpr.2007.09.001>
9. Scourfield J, McGuffin P (1999) Familial risks and genetic counselling for common psychiatric disorders. *Adv Psychiatr Treat* 5:39-45. <https://doi:10.1192/apt.5.1.39>
10. van Santvoort F, Hosman CMH, Janssens JMA, van Doesum KTM, Reupert AE, van Loon LMA (2015) The impact of various parental mental disorders on children's diagnoses: A systematic review. *Clin Child Fam Psychol Rev* 18(4):281-299. <https://doi:10.1007/s10826-013-9781-7>
11. Dean K, Stevens H, Mortensen PB, Murray RM, Walsh E, Pedersen CB (2010) Full spectrum of psychiatric outcomes among offspring with parental history of mental disorder. *Arch Gen Psychiatry* 67(8):822-829. <https://doi:10.1001/archgenpsychiatry.2010.86>

12. Maybery D, Reupert AE (2018) The number of parents who are patients attending adult psychiatric services. *Curr Opin Psychiatry* 31(4):358-362. <https://doi:10.1097/YCO.0000000000000427>
13. Maybery D, Reupert AE, Patrick K, Goodyear M, Crase L (2009) Prevalence of parental mental illness in Australian families. *Psychiatr Bull* 33:22–26. <https://doi:10.1192/pb.bp.107.018861>
14. Kato N, Yanagawa T, Fujiwara T, Morawska A (2015) Prevalence of children's mental health problems and the effectiveness of population-level family interventions. *J Epidemiol* 25(8):507-516. <https://doi:10.2188/jea.JE20140198>
15. Kieling C, Baker-Henningham H, Belfer M et al (2011) Child and adolescent mental health worldwide: Evidence for action. *Lancet* 378(9801):1515-1525. [https://doi:10.1016/S01406736\(11\)60827-1](https://doi:10.1016/S01406736(11)60827-1)
16. Hosman CM, van Doesum KT, van Santvoort F (2009) Prevention of emotional problems and psychiatric risks in children of parents with a mental illness in the Netherlands: I. The scientific basis to a comprehensive approach. *Aust EJ Ad Ment Health* 8(3):250-263. <https://doi:10.5172/jamh.8.3.250>
17. Gross HE, Shaw DS, Moilanen KL (2008) Reciprocal associations between boys' externalizing problems and mothers' depressive symptoms. *J Abnorm Child Psychol* 36(5):693–709. <https://doi:10.1007/s10802-008-9224-x>
18. Lilenfeld LR, Kaye WH, Greeno CG et al (1998) A controlled family study of anorexia nervosa and bulimia nervosa: Psychiatric disorders in first-degree relatives and effects of proband comorbidity. *Arch Gen Psychiatry* 55(7):603-610. <https://doi:10.1001/archpsyc.55.7.603>
19. Meltzer H, Ford T, Goodman R, Vostanis P (2011) The burden of caring for children with emotional or conduct disorders. *Int J Fam Med* 2011:1-8. <https://doi:10.1155/2011/801203>
20. Nicholson J, Clayfield JC (2004) Responding to depression in parents. *Pediatr Nurs* 30(2):136-142. <https://www.ncbi.nlm.nih.gov/pubmed/15185736>. Accessed 28 January 2019
21. Kazdin AE, Wassell G (2000) Predictors of barriers to treatment and therapeutic change in outpatient therapy for antisocial children and their families. *Ment Health Serv Res* 2:27-40. <https://doi:10.1023/A:1010191807861>
22. Beauchaine TP, Webster-Stratton C, Reid MJ (2005) Mediators, moderators, and predictors of 1-year outcomes among children treated for early-onset conduct problems: A latent growth curve analysis. *J Consult Clin Psychol* 73(3):371. <https://doi:10.1037/0022-006X.73.3.371>

23. Rishel CW, Greeno CG, Marcus SC, Anderson C (2006) Effect of maternal mental health problems on child treatment response in community-based services. *Psychiatr Serv* 57(5):716-719.
<https://doi:10.1176/appi.ps.57.5.716>
24. Garber J, Clarke GN, Weersing VR et al (2009) Prevention of depression in at-risk adolescents: A randomized controlled trial. *JAMA* 301(21):2215-2224. <https://doi:10.1001/jama.2009.788>
25. Wesseldijk LW, Dieleman GC, van Steensel FJ, Bleijenberg EJ, Bartels M, Bögels SM, Middeldorp CM (2018) Do parental psychiatric symptoms predict outcome in children with psychiatric disorders? A naturalistic clinical study. *J Am Acad Child Adolesc Psychiatry* 57(9):669-677.
<https://doi:10.1016/j.jaac.2018.05.017>
26. Grant MJ, Booth A (2009) A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Info Libr J* 26:91-108. <https://doi:10.1111/j.1471-1842.2009.00848.x>
27. Munn Z, Peters MD, Stern C, Tufanaru C, McArthur A, Aromataris E (2018) Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Med Res Methodol* 18:143. <https://doi:10.1186/s12874-018-0611-x>
28. Aromataris E, Munn Z. (2017) Joanna Briggs Institute reviewer's manual, 4th edition. The Joanna Briggs. <https://reviewersmanual.joannabriggs.org/>. Accessed 26 September 2018
29. World Health Organization (2018) International statistical classification of diseases and related health problems, 11th revision. <https://icd.who.int/browse11/l-m/en>. Accessed 29 August 2018
30. Austin MW (2007) *Conceptions of parenthood: Ethics and the family*. Routledge, New York
31. Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A (2016) Rayyan—A web and mobile app for systematic reviews. *Syst Rev* 5:210. <https://doi:10.1186/s13643-016-0384-4>
32. Naughton MF, Maybery D, Goodyear M (2018) Prevalence of mental illness within families in a regional child-focussed mental health service. *Int J Ment Health Nurs* 27(2):901-910. <https://doi:10.1111/inm.12386>
33. Wesseldijk LW, Dieleman GC, van Steensel FJA, Bartels M, Hudziak JJ, Lindauer RJL, Bögels SM, Middeldorp CM (2018) Risk factors for parental psychopathology: A study in families with children or adolescents with psychopathology. *Eur Child Adolesc Psychiatry* 27(12):1575-1584.
<https://doi:10.1007/s00787-018-1156-6>
34. Baker L, Lees R (2014) Parental mental illness and coping: An exploratory survey. *Can J Fam Youth* 6:115-133. <http://ejournals.library.ualberta.ca/index/php/cjfy>. Accessed 10 October 2018

35. Gatsou L, Yates S, Hussain S, Barrett M, Gangavati S, Ghafoor R (2016) Parental mental illness: incidence, assessment and practice. *Ment Health Pract* 19(5):25. <https://doi:10.7748/mhp.19.5.25.s18>
36. Golhar TS, Srinath S (2013) Global child and adolescent mental health needs: Perspectives from a national tertiary referral center in India. *Adolesc Psychiatry* 3:82-86. <https://doi:10.2174/2210676611303010014>
37. Huemer J, Völkl-Kernstock S, Yee A, Bruckner T, Skala K (2016) “The Buoy”: Utilization of a low-threshold ambulatory setting for traumatized children and adolescents in Austria. *Neuropsychiatr* 30:27-32. <https://doi:10.1007/s40211-016-0178-x>
38. Reay RE, Raphael B, Aplin V, McAndrew V, Cubis JC, Riordan DM, Palfrey N, Preston W (2015) Trauma and adversity in the lives of children and adolescents attending a mental health service. *Child Aust* 40(3):167-179. <https://doi:10.1017/cha.2015.20>
39. Robson J, Gingell K (2012) Improving care for families where children and parents have concurrent mental health problems. *Child Adolesc Ment Health* 17(3):166-172. <https://doi:10.1111/j.1475-3588.2011.00630.x>
40. Swartz HA, Henry D, Hefferen J (2014) Caregiver depression screening in a specialty mental health clinic. *Psychiatr Serv* 65(3):400. <https://doi:10.1176/appi.ps.650303>
41. Guilé J, Huynh C, Breton J, De La Rivière S, Berthiaume C, St-Georges M, Labelle R (2016) Familial and clinical correlates in depressed adolescents with Borderline Personality Disorder traits. *Front Pediatr* 4:87. <https://doi:10.3389/fped.2016.00087>
42. Jayaprakash R, Rajamohan K, Anil P (2014) Determinants of symptom profile and severity of conduct disorder in a tertiary level pediatric care set up: A pilot study. *Indian J Psychiatry* 56(4):330. <https://doi:10.4103/0019-5545.146511>
43. Yu YW, Chung KH, Lee YK, Lam WC, Yiu MGC (2016) Prevalence of maternal affective disorders in Chinese mothers of preschool children with autism spectrum disorders. *East Asian Arch Psychiatry*, 26(4):121-128. <http://www.easap.asia/index.php/component/k2/item/757-1612-v26n4-p121>. Accessed 10 October 2018
44. Agha SS, Zammit S, Thapar A, Langley K (2013) Are parental ADHD problems associated with a more severe clinical presentation and greater family adversity in children with ADHD? *Eur Child Adolesc Psychiatry* 22(6):369-377. <https://doi:10.1007/s00787-013-0378-x>
45. Dentz A, Romo L, Konofal E, Parent V (2016) Self-rated ADHD symptoms among biological mothers or fathers of children with confirmed ADHD in a French population. *Psychol Rep* 118:277-291. <https://doi:10.1177/0033294115626640>

46. Gopalan G, Dean-Assael K, Klingenstein K, Chacko A, McKay MM (2010) Caregiver depression and youth disruptive behavior difficulties. *Soc Work Ment Health* 9:56-70.
<https://doi:10.1080/15332985.2010.494528>
47. Khasakhala LI, Ndeti DM, Mathai M, Harder V (2013) Major depressive disorder in a Kenyan youth sample: Relationship with parenting behavior and parental psychiatric disorders. *Ann Gen Psychiatry*, 12:15. <https://doi:10.1186/1744-859X-12-15>
48. Sundarlall R, Van Der Westhuizen D, Fletcher L (2016) The functioning and behaviour of biological parents of children diagnosed with attention deficit/hyperactivity disorder, attending the outpatient department at Weskoppies Hospital, Pretoria. *S Afr J Psychiatr* 22:836.
<https://doi:10.4102/sajpsychiatry.v22i1.836>
49. Takeda T, Stotesbery K, Power T, Ambrosini PJ, Berrettini W, Hakonarson H, Elia J (2010) Parental ADHD status and its association with proband ADHD subtype and severity. *J Pediatr* 157(6):995-1000.
<https://doi:10.1016/j.jpeds.2010.05.053>
50. Moher D, Liberati A, Tetzlaff J, Altman DG (2010) Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Int J Surg* 8:336-341. <https://doi:10.1016/j.ijsu.2010.02.007>
51. Yuan ASV (2016) Father–child relationships and nonresident fathers’ psychological distress: What helps and what hurts? *J Fam Issues* 37(5):603-621. <https://doi:10.1177/0192513X14526394>
52. Santora J, Haysy PA (1998) Coping outside traditional roles: The case of noncustodial mothers and implications for therapy. *Women Ther* 21:53–66. <https://doi:10.1300/J015v21n04.04>
53. Van Loon AJM, Tijhuis M, Picavet HSJ, Surtees PG, Ormel J (2003) Survey non-response in the Netherlands: Effects on prevalence estimates and associations. *Ann Epidemiol* 13(2):105-110.
[https://doi:10.1016/S1047-2797\(02\)00257-0](https://doi:10.1016/S1047-2797(02)00257-0)
54. van de Mortel TF (2008) Faking it: Social desirability response bias in self-report research. *Aust J Adv Nurs* 25(4):40-48. http://www.ajan.com.au/ajan_25.4.html. Accessed 16 February 2019