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Research paper

Characteristics and 12-month outcomes of clinically referred children and young people at risk of bipolar disorder

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ABSTRACT

Introduction: Bipolar disorder is uncommon in children and young people (CYP), but those at risk are likely to be clinically referred. However, the characteristics and outcomes of CYP at risk of bipolar disorder referred to UK Child and Adolescent Mental Health Services (CAMHS) remain understudied.
Methods: Participants were 305 CYP aged 11–17 years, with emotional difficulties, referred to CAMHS. CYP and/or parent/carers self-completed the Development and Wellbeing Assessment (DAWBA, including the mania section) at baseline, and follow-up measures at 12 months.
Results: A computerised algorithm categorised 9 (3.0 %, 95 % CI [1.4 %, 5.5 %]) CYP as 'possible', 66 as 'uncertain', and 230 as 'unlikely' for bipolar disorder, using symptom and impact scores. CYP in the 'possible' bipolar disorder subgroup were young (mean age = 13 years) and of high socioeconomic status. These CYP were likely to have their CAMHS referral accepted (89 %) and treatment/intervention offered (67 %) and started (56 %) within 12 months of referral. They had high levels of self-harm thoughts and behaviours at baseline and follow-up. The diagnostic algorithm indicated that they had social phobia, generalised anxiety disorder, and/or depression. A third of them were diagnosed with these disorders or obsessive-compulsive disorder by clinicians within 12 months, but not bipolar disorder.
Limitations: Our categories of likelihood subgroups were conservative as some participants only had DAWBAs completed by one informant. Subgroups were not compared statistically.
Conclusion: CYP in the 'possible' bipolar disorder subgroup were more likely to receive CAMHS input. They have high self-harm risk. Comorbid emotional disorders among these CYP should be considered.

1. Introduction

Bipolar disorder is characterised by mood elevation (mania or hypomania) with or without depression, as outlined in the International Classification of Diseases (11th revision) (ICD-11) and Diagnostic and Statistical Manual of Mental Disorders (5th edition) (DSM-5) (*American Psychiatric Association*, 2013; World Health Organisation, 2022).

The prevalence of bipolar disorder in children and young people varies by age group and diagnostic criteria applied. Based on meta-analyses of 19 international epidemiological studies, the overall prevalence of children and young people meeting ICD or DSM diagnostic criteria for bipolar disorder varies from 0 % to 1.8 % globally (Parry et al., 2018; Van Meter et al., 2011; Van Meter et al., 2019). In the United Kingdom (UK), the 2004 British Child and Adolescent Mental Health

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Survey of 5326 children and young people aged 8–19 years found the overall prevalence of children and young people meeting the full DSM-IV diagnostic criteria for bipolar disorder to be 0.04–0.13 % among 16–19-year-olds, with only one case identified in 8–15-year-olds (Stringaris et al., 2010). The subsequent (2017) national survey indicated that the prevalence rates of children and young people who were likely to have bipolar disorder were 0–0.1 % and 0.1 % in 11–16-year-olds and 17–19-year-olds respectively, based on child and parent-reported symptom and impact scores on the Developmental and Well-being Assessment (DAWBA) tool, which were reviewed by trained clinical raters (Sadler et al., 2017). There is limited epidemiological data for bipolar disorder diagnosed by clinicians in the UK apart from a national epidemiological surveillance study conducted during 2009–2010 (Sharma et al., 2016). This found the incidence of clinician-made bipolar I disorder in under 16-year-olds to be 0.59/100000 (95 % CI [0.41,0.84]) in the UK and Republic of Ireland. The slightly higher prevalence observed in late adolescence is consistent with a meta-analysis of 192 epidemiological studies showing a mean onset age of bipolar disorder at 19.5 years, with 5.1 % of cases emerging by age 14 years (Solmi et al., 2022).

The low prevalence rates of bipolar disorder in the general population likely underestimate the burden and prevalence rates of bipolar disorder among clinically referred children and young people. However, recent epidemiological data for clinical referred populations remain scarce. The STAndardised DIagnostic Assessment for children and young people (STADIA) randomised controlled trial investigated children and young people with emotional difficulties referred to outpatient Child and Adolescent Mental Health Services (CAMHS) across eight geographically diverse sites in England (Sayal et al., 2025). CAMHS in the UK consist of multidisciplinary clinical teams that provide secondary mental health care for children and young people referred with mental health difficulties. The geographical representativeness of the STADIA sample, and the trial's use of the DAWBA completed by children and young people and/or parent/carers are valuable in characterising clinically referred children and young people at risk of bipolar disorder. Understanding the characteristics and outcomes of this population is crucial to improve recognition and provide appropriate care and interventions. A population cohort study of 348,226 individuals in Wales found that 44 % of individuals who received a diagnosis of bipolar disorder by the age of 32 years had had previous contact with CAMHS, suggesting an opportunity for earlier identification and intervention if their characteristics can be better understood while they are in CAMHS (O'Hare et al., 2025). This is particularly important given the risk of poor outcomes, including suicide attempts, frequent and severe relapses, and comorbid mental health conditions in children and young people with bipolar disorder (Clements et al., 2013; Serra, 2016). To our knowledge, this is the first UK-based paper that aims to:

i) describe the characteristics of clinically referred 11–17-year-olds at risk of bipolar disorder and
ii) investigate their outcomes at 12 months.

2. Methods

2.1. Sample

The sample comprised a subgroup of children and young people (those aged 11–17 years) from the STADIA trial (ISRCTN15748675) (Day et al., 2022; Sayal et al., 2025). STADIA is a multicentre, randomised controlled trial that investigated the clinical and cost effectiveness of using a standardised diagnostic assessment tool for 5–17-year-olds as an adjunct to routine clinical assessments in outpatient CAMHS in England. STADIA focussed on routine referrals. Children and young people referred as urgent cases were excluded due to their need for expedited clinical assessment. This paper focuses on 11–17-year-olds because bipolar disorder in the UK is rare in younger children (Sadler et al., 2017). A total of 305 children and young people and/or their parent/carers (148 children and young people and 259 parent/carers) completed the DAWBA section on 'Rapidly Changing Mood/ Going Abnormally High' (Section S), which is the mania section. Another 13 participants were excluded from the analysis because neither children and young people nor their parent/carers that completed at least one of the other DAWBA sections answered Section S of the DAWBA. Please see Supplementary Material for a detailed illustration of participant selection for this paper.

As per the trial's ethical approval, for children and young people aged 11–15 years, the primary participant was the parent/carer, and the children and young people had the option to complete the DAWBA as the secondary participant. For those aged 16–17 years, the primary participant was the child/ young person, and the parent/carer had the option to complete the DAWBA as the secondary participant. More information about the STADIA trial is available in the published protocol (Day et al., 2022), the main trial outcomes paper (Sayal, 2025), and trial registration (ISRCTN15748675).

2.2. Measures

2.2.1. DAWBA

The DAWBA is a structured assessment tool designed, based on ICD-10 and DSM-IV or DSM-5, to measure the likelihood of common emotional and behavioural disorders through enquiring about symptoms and their functional impact on children and young people (Goodman et al., 2000). In STADIA, participants self-administered the DAWBA questionnaire (instead of using interviewers). In Section S, children and young people and/or their parent/carers were first asked two screening questions for mania in bipolar disorder, which are:

A) Rapidly changing mood: "Some young people have a fairly steady mood, while other young people's mood swings up and down a lot, with marked or rapid changes. For example, they may swing from being very cheerful to being very sad or angry, and then perhaps swing back again the other way just as quickly. Do you / does your child have marked or rapid mood changes?"

and

B) Going abnormally high: "Some young people have episodes of going abnormally high. During these episodes they can be unusually cheerful, full of energy, speeded up, talking fast, getting more done, joking around, and needing less sleep. These episodes stand out because the young person is different from their normal self. Do you / does your child ever go abnormally high?"

Positive responses to either screening question prompted further questions on symptoms of mania in bipolar disorder. Further information about the DAWBA is available at http://www.dawba.info (YouthinMind, 1999). Although the bipolar disorder section of the DAWBA without free text has not been validated for clinical diagnostic use, preliminary validation confirms its predictive value (Stringaris et al., 2010). In a study based on the 2004 British Child and Adolescent Mental Health Survey, two experts compared DAWBA bipolar section responses from children, young people, and parents with clinician-made diagnoses of bipolar disorder (Stringaris et al., 2010). In STADIA, participants were asked to complete specific DAWBA modules presented to them, including bipolar disorder, separation anxiety, specific phobia, social phobia, panic disorder, agoraphobia, generalised anxiety disorder (GAD), post-traumatic stress disorder, obsessive-compulsive disorder (OCD), depression, oppositional defiant disorder, and conduct disorder. Participants were not asked to complete other DAWBA modules such as attention-deficit hyperactivity disorder (ADHD), eating disorder, and autism spectrum disorder (ASD). Participants were not required to complete free-text responses in Section S.

2.2.1.1. DAWBA subgroups. A computerised algorithm used responses from children and young people and/or their parent/carer to determine children and young people's symptom and impact scores. Please refer to Table 1 and Supplementary Material S2 for more information on the algorithm. The scores were subsequently used to categorise children and young people into three subgroups ('possible', 'uncertain', 'unlikely') according to their likelihood of meeting ICD-10 diagnostic criteria for bipolar disorder (Goodman et al., 2011). It is important to note that the algorithm reflects a likelihood prediction of bipolar disorder rather than a diagnosis made by a clinician. The computerised algorithm used is not the same as the DAWBA's computerised diagnostic algorithm – the latter has not been validated for bipolar disorder as there were very few cases in the national epidemiological survey (Stringaris et al., 2010).

A) 'Possible' bipolar disorder - Both children and young people and parent/carer reported high symptom and impact scores.
B) 'Uncertain' bipolar disorder - One participant (either children and young people or parent/carer) reported high symptom and impact scores, but the other participant did not provide a response or reported either medium or low symptom and impact scores.
C) 'Unlikely' bipolar disorder - Both children and young people and parent/carer reported medium or low symptom and impact scores, or one participant (either children and young people or parent/carer) reported medium or low symptom and impact scores and the other participant did not provide a response.

2.2.2. Baseline measures

We collected the following participant socio-demographic characteristics from healthcare records, and parent/carer and/or self-report at study entry:

A) Demographics of children and young people: age, sex, and ethnicity.

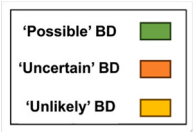
B) Socioeconomic status: Index of Multiple Deprivation (IMD) (quintiles categorised based on parent/carers' paid employment status and the postcode of the children and young people's primary residence).

Other baseline measures investigated were:

A) Previous referral to CAMHS.

Table 1
Likelihood of meeting bipolar disorder diagnostic criteria based on DAWBA symptom and impact scores reported by children and young people and/or parent/carer.

Likelihood of BD diagnosis (Symptom/Impact score)		Parent/Carer report			
		Low	Medium	High	*No response*
CYP report	Low	64	1	5	*27*
	Medium	7	1	1	*4*
	High	13	1	9	*15*
	No response	*111*	*15*	*31*	13



BD: bipolar disorder.
CYP: children and young people.
Terminology of High/ Medium/Low was developed by the research team using these criteria:
High = (+++/+++),
Medium = (++/++, ++/+++ or +++/++)
Low = all other combinations, and
Missing = both symptom and impact scores are missing or not applicable.

B) Other emotional disorder diagnoses as predicted by the DAWBA computerised diagnostic algorithm (separation anxiety, specific phobia, social phobia, panic disorder, agoraphobia, GAD, post-traumatic stress disorder, OCD, and depression).

C) Scores on other mental health questionnaires:

i) Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1999, 2001) – The SDQ is a valid and reliable questionnaire with 25 emotional and behavioural items for children and young people, and each item is rated on a 3-point scale (0- not true, 1- somewhat true, 2- certainly true). The items make up five subscales (each ranging from 0 to 10) for emotional problems, hyperactivity/ inattention, conduct problems, peer problems, and prosocial behaviour (with the first four subscales making up the total score, 0–40).

ii) Mood and Feelings Questionnaire (MFQ) (Angold et al., 1995) – This is a valid and reliable questionnaire for depression in children and young people (Wood et al., 1995). 33 items are rated on a 3-point scale (0- not true, 1- somewhat true, 2- true). Higher scores suggest more severe depressive symptoms and a score of 27 or more may indicate depression.

iii) Revised Children Anxiety and Depression Scale (RCADS) (Chorpita et al., 2000) – This consists of 47 self-reported items on the frequency of various symptoms of anxiety and low mood to generate an overall anxiety and low mood score (ranging from 0 to 141). Each item is rated on a 4-point scale (0- never, 1- sometimes, 2- often, 3- always). The RCADS has subscales for separation anxiety, generalised anxiety, panic, social phobia, obsessive-compulsive disorder, and major depression.

iv) Self-harm thoughts and behaviours - children and young people were asked to report on their self-harm thoughts and behaviours within the last 6 months (frequencies were: never, once or twice, or three or more times).

2.2.3. Outcome measures at 12 months

Twelve months after entry into the STADIA trial, outcome measures were collected from healthcare records and parent/carer and/or self-reports.

A) Referral outcomes:

i) Acceptance of index referral (i.e. the CAMHS referral at the point of entry into the STADIA trial) - acceptance was defined as being offered an initial CAMHS appointment.

ii) Acceptance of any referral (either the index or subsequent referral (if made) to CAMHS) within 12 months.

B) Emotional disorder diagnosis made by clinicians within 12 months. The diagnosis was made by clinicians following their assessment and was not assigned through using standardised diagnostic assessment tools. Eligible emotional disorder diagnoses were predefined using precise diagnostic terminology in ICD-10 or DSM-IV where classification of a diagnoses required the suffix 'disorder'. Diagnosis data were systematically extracted from routine clinical records by researchers.

C) Treatment/intervention within 12 months.

i) Any treatment/intervention offered by CAMHS.

ii) Any treatment/intervention started by CAMHS.

D) Other mental health questionnaire (SDQ, MFQ, RCADS) scores at 12 months (as defined in 2.2.2C).

E) children and young people's self-report of self-harm thoughts and behaviours at 12 months.

2.3. Analysis

Descriptive statistics were used to compare the baseline and outcome measures across the subgroups. Continuous scores (age, SDQ, MFQ, RCADS) were summarised in terms of the mean and standard deviation (SD) in each subgroup. Due to attrition, the mean and SD for the participants who completed the SDQ, MFQ, and RCADS both at baseline and 12 months (complete cases) were analysed and reported separately. Categorical data were summarised in terms of frequency counts and

percentages for the 'possible', 'unlikely', and 'very unlikely' bipolar disorder subgroups. The proportion of children and young people in each bipolar disorder subgroup is presented alongside 95 % confidence intervals (CI). No formal statistical comparisons were made due to the exploratory nature of the analyses to avoid the risk of chance findings.

3. Results

3.1. Bipolar disorder likelihood subgroups

Three bipolar disorder likelihood subgroups were derived according to the DAWBA computerised algorithm (see Table 1). Nine children and young people were categorised into the 'possible' bipolar disorder subgroup (3.0 %, 95 % confidence interval (CI) [1.4 %,5.5 %]). Sixty-six children and young people were categorised into the 'unlikely' bipolar disorder subgroup (21.7 %, 95 % CI [17.1 %,26.7 %]). Two hundred and thirty children and young people were categorised into the 'very unlikely' bipolar disorder subgroup (75.4 %, 95 % CI [70.2 %, 80.1 %]).

From the total sample of participants that provided responses (n = 305), 102 (33.4 %) children and young people had DAWBA symptom and impact scores reported by both children and young people and parent/carer. Among the 11–15 years age group (n = 243), 154 (63.4 %) children and young people did not provide responses as they were secondary participants. In this age group, out of 45 parent/carers reporting high symptom and impact scores, 31 (68.9 %) children and young people did not provide responses. Among the 16–17 years age group (n = 62), 46 (74.2 %) parent/carers did not provide responses as they were secondary participants. In this age group, out of 18 children and young people reporting high symptom and impact scores, 15 (83.3 %) parent/carers did not provide responses.

3.2. Baseline characteristics

The baseline demographic characteristics of children and young people are displayed in Table 2. All nine children and young people in the 'possible' bipolar disorder subgroup were in the 11–15-years age group. The ratio of female to male children and young people in this 'possible' bipolar disorder subgroup was 8:1 compared to 2:1 in the other subgroups. Children and young people with higher likelihood of bipolar disorder had higher socioeconomic status - 89 % of children and young people in the 'possible' bipolar disorder subgroup were in the fourth or fifth quintiles of the IMD. In the other subgroups, the distribution of children and young people across the IMD quintiles was more balanced. Only 22 % of children and young people in the 'possible' bipolar disorder subgroup had been previously referred to CAMHS (compared to the 'unlikely' (32 %) and 'uncertain' bipolar disorder subgroups (52 %)).

Table 2
Baseline demographic characteristics of children and young people by bipolar disorder likelihood subgroups.

	'Unlikely' bipolar disorder n = 230 (75.4 %)	'Uncertain' bipolar disorder n = 66 (21.6 %)	'Possible' bipolar disorder n = 9 (3.0 %)
Mean age (years)	13.8 (SD = 1.7)	14.0 (SD = 1.8)	13.0 (SD = 1.5)
Sex			
Female	156 (68 %)	43 (65 %)	8 (89 %)
Ethnicity			
White British	198 (87 %)	52 (81 %)	9 (100 %)
Index of multiple deprivation			
1st (most deprived)	34 (15 %)	10 (15 %)	1 (11 %)
2nd	42 (18 %)	9 (14 %)	0 (0 %)
3rd	55 (24 %)	12 (18 %)	0 (0 %)
4th	46 (20 %)	16 (25 %)	3 (33 %)
5th (least deprived)	53 (23 %)	18 (28 %)	5 (56 %)

SD: standard deviation.

There was a gradient pattern in the percentage of children and young people meeting criteria for at least one other emotional disorder diagnosis, as predicted by the DAWBA computerised diagnostic algorithm, with increasing likelihood of bipolar disorder (see Fig. 1). This pattern was most notable for social phobia, GAD, and depression. A similar gradient pattern was also seen for conduct disorder (CD) and oppositional defiant disorder (ODD).

3.3. 12-month outcomes

Table 3 outlines service-related outcomes at 12 months follow-up. While no children and young people were diagnosed with bipolar disorder by a clinician, three children and young people (33 %) in the 'possible' bipolar disorder subgroup received other clinician-made diagnoses that included depression, GAD, social anxiety disorder, and OCD. Both at baseline and 12 months, all children and young people in the 'possible' bipolar disorder subgroup reported self-harm thoughts (see Table 4).

Fig. 2 compares the mean scores on the SDQ, MFQ, and RCADS questionnaires for children and young people and parent/carers who completed the questionnaires both at baseline and at 12 months. In relation to the 'possible' bipolar disorder subgroup, both children and young people and parent/carers reported the highest total mean scores for SDQ, MFQ, and RCADS at baseline and 12 months compared to the other two subgroups (see Supplementary Material). When baseline and 12 month mean scores were compared, parent/carers reported worsening (i.e. increase in) total mean scores on the SDQ, RCADS, and MFQ over time in the 'possible' bipolar disorder subgroup, in contrast to improving scores over time for the other two subgroups (see Supplementary Material). Children and young people in the 'possible' bipolar disorder subgroup also self-reported higher mean scores in conduct disorder and hyperactivity/inattention subscales at baseline and 12 months (M = 5.2, SD = 1.9; M = 8.6, SD = 1.3) than children and young people in the other two subgroups, highlighting the importance of associated behavioural difficulties among those at risk of bipolar disorder (see Supplementary Material).

4. Discussion

This paper describes the characteristics and 12-month outcomes of children and young people with emotional difficulties, referred to CAMHS, and identified as being at risk of bipolar disorder. Within this large, clinically referred population across eight sites in England, the DAWBA computerised algorithm identified 3 % of children and young people as having 'possible' bipolar disorder. Despite this, no children and young people received a bipolar disorder diagnosis from a clinician. This might be because clinicians may have considered alternative explanations for their symptoms or because a more longitudinal assessment is often required to reach a clinician-made diagnosis of bipolar disorder in children and young people. Our study followed up children and young people for 12 months following referral, but it can take up to 6 years from the onset of bipolar disorder symptoms to receipt of a confirmed diagnosis and intervention (Dagani et al., 2016). The median interval between adolescents being seen by CAMHS and receiving a diagnosis of bipolar disorder was 6.4 years in the Wales cohort study (O'Hare et al., 2025). In the UK, the Bipolar Commission identified a 9.5-year delay in bipolar disorder diagnosis from when patients first report their symptoms to clinicians (Bipolar, 2024). This is especially relevant in Type II bipolar disorder as symptoms of hypomania may not be as severe as a full-blown mania episode, or a depressive episode may be the first presentation before reaching adulthood (Dagani et al., 2016). As urgent referrals were excluded from the STADIA trial, it is possible that children and young people experiencing symptoms of mania had to be urgently seen and treated by CAMHS without being recruited as trial

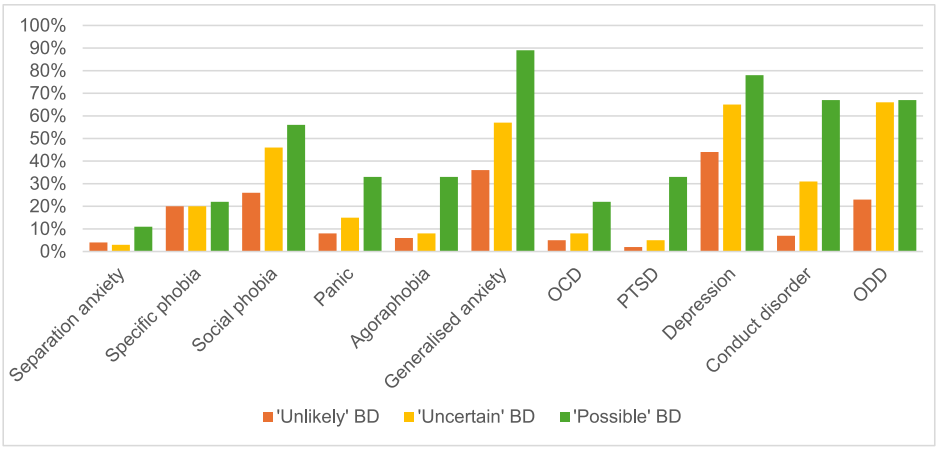


Fig. 1. DAWBA emotional disorder diagnoses (predicted by diagnostic algorithm) by bipolar disorder likelihood subgroups.
BD: bipolar disorder, OCD: obsessive-compulsive disorder, PTSD: post-traumatic stress disorder, ODD: oppositional defiant disorder.

Table 3
Service-related outcomes within 12 months by bipolar disorder likelihood subgroups.

	'Unlikely' bipolar disorder *n* = 230 (75.4 %)	'Uncertain' bipolar disorder n = 66 (21.6 %)	'Possible' bipolar disorder n = 9 (3.0 %)
Acceptance of referral			
Index referral accepted	119 (52 %)	29 (44 %)	6 (67 %)
Any referral accepted	147 (64 %)	41 (62 %)	8 (89 %)
Any emotional disorder diagnosis made by clinicians	36 (16 %)	7 (11 %)	3 (33 %)
Treatment/Intervention			
Any treatment/ intervention offered	111 (48 %)	29 (44 %)	6 (67 %)
Any treatment/ intervention started	66 (29 %)	21 (32 %)	5 (56 %)

Table 4
Frequency of self-harm thoughts and behaviours reported by children and young people at baseline and 12 months by bipolar disorder likelihood subgroups.

	'Unlikely' bipolar disorder	'Uncertain' bipolar disorder	'Possible' bipolar disorder
Self-harm thoughts			
Baseline			
0	41 (29 %)	7 (16 %)	0 (0 %)
1–2 times	50 (35 %)	7 (16 %)	3 (38 %)
>2 times	52 (36 %)	30 (68 %)	5 (62 %)
12 months			
0	40 (47 %)	2 (6 %)	0 (0 %)
1–2 times	17 (20 %)	13 (42 %)	2 (29 %)
>2 times	29 (34 %)	16 (52 %)	5 (71 %)
Self-harm behaviours			
Baseline			
0	93 (67 %)	12 (31 %)	3 (38 %)
1–2 times	18 (13 %)	6 (15 %)	1 (12 %)
>2 times	27 (20 %)	21 (54 %)	4 (50 %)
12 months			
0	60 (70 %)	11 (35 %)	2 (29 %)
1–2 times	10 (12 %)	6 (19 %)	1 (14 %)
>2 times	16 (19 %)	14 (45 %)	4 (57 %)

participants. Moreover, symptoms in Section S of DAWBA are based on DSM and ICD criteria, and these may be more relevant to adults. A seminal paper about clinically referred children described how bipolar disorder symptoms differ based on age and atypical symptoms such as irritability with affective storms or temper outbursts are often the presenting problems in children and young people (Wozniak et al., 1995). Due to DAWBA's screening questions skip rules (Goodman et al., 2000), children and young people with persistent episodic irritability may have been missed, as this symptom is assessed only in subsequent questions and not included in the initial screening questions, which are 'rapidly changing mood' and 'going abnormally high'. Also, mania symptoms like risk-taking and increase in goal-directed activities may be less common in children and young people compared with adults (Connors, 2023).

Although children and young people in the 'possible' bipolar disorder subgroup did not receive a clinician-made diagnosis of bipolar disorder, some of them received other clinician-made emotional disorder diagnoses such as anxiety disorders, OCD, or depression. The 'possible' bipolar disorder subgroup also scored the highest on the conduct problem and hyperactivity/ inattention subscales of the SDQ, and for ODD and CD on the DAWBA. These findings are consistent with previous bipolar disorder research in children and young people showing that males often present with symptoms of attention-deficit hyperactivity disorder (ADHD), while females often present with symptoms of anxiety before they are diagnosed with bipolar disorder (Mitchell et al., 2020). A recent systematic review of 20 studies found that among children and young people with bipolar disorder, 60 % also had ADHD, and 13–29 % had comorbid anxiety, obsessive–compulsive, or conduct disorders (Fahrendorff et al., 2023). These findings emphasise the high rates of comorbidity and the possible symptom overlap across disorders in this age group. For instance, restlessness, distractibility, and inability for delayed gratification may resemble ADHD; risk-taking in mania without regard for consequences can appear similar to conduct problems; and

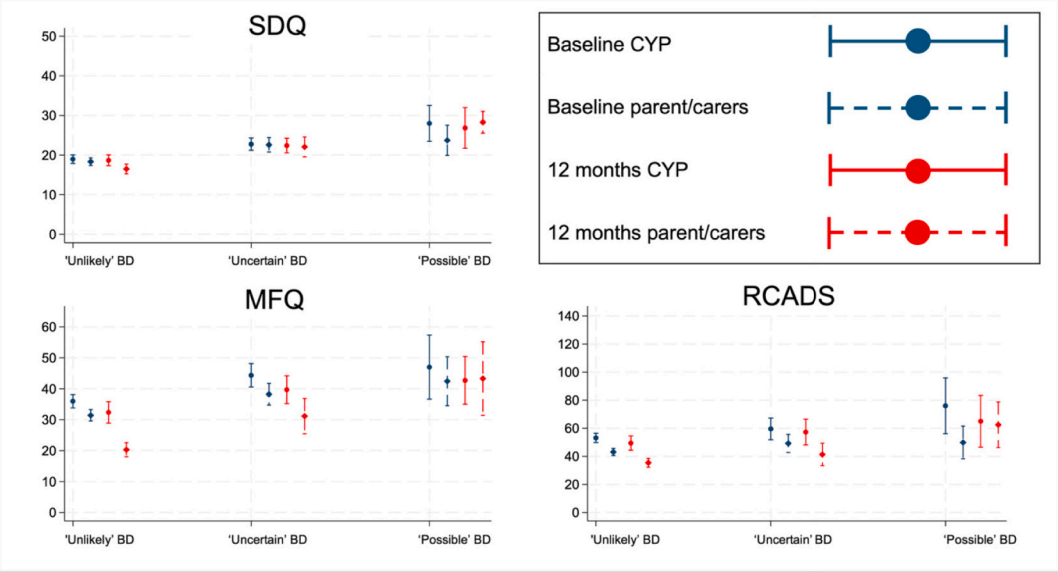


Fig. 2. SDQ: Strengths and Difficulties Questionnaire, MFQ: Mood and Feelings Questionnaire, RCADS: Revised Children Anxiety and Depression Scale, BD: bipolar disorder, CYP: children and young people.

irritability is frequently seen in depression, anxiety, or as part of normative adolescent mood variability. Rapid mood swings may also overlap phenomenologically with emotional dysregulation observed in emerging emotionally unstable personality disorder traits. However, such transdiagnostic symptom similarity does not negate the distinctiveness of bipolar disorder as a diagnostic entity. As the DAWBA was self-administered without interviewers in our study and participants were not required to answer free-text questions, endorsement of individual items outside a clinical interview context may increase the risk of false positives. To mitigate this, our study categorised children and young people as being in the 'possible' bipolar disorder subgroup only when both child and parent provided high symptom and impact ratings, thereby increasing the likelihood that findings reflected genuine psychopathology rather than isolated symptom endorsement. Importantly, while comorbid conditions are common and clinically relevant, a diagnosis of bipolar disorder should not be overlooked simply because other diagnoses are traditionally favoured in CAMHS settings.

Despite children and young people in the 'possible' bipolar disorder subgroup scoring very high for at least one other emotional disorder domain in the DAWBA, the frequency of clinician-made emotional disorder diagnoses was low. This is striking, given that the participants were derived from a clinically referred population. Low rates of emotional disorder diagnoses were also observed in the main STADIA trial, with only approximately 10 % of children and young people receiving a clinician-made diagnosis within 12 months of CAMHS referral (Sayal et al., 2025). While this may partly be due to the study's stringent requirement that clinician-made diagnoses correspond to ICD or DSM diagnostic terminology, qualitative feedback from participating clinicians suggested a broader reluctance to make formal diagnoses (Sayal et al., 2025). Under recognition of emotional disorders is not uncommon in the UK as seen in the overall low rates of diagnoses in CAMHS in England. Data from a large UK national survey found that only 10.4 % of children and young people aged 7–16 years in the UK who had contact with any healthcare services for mental health, emotional, behavioural, or concentration problems were given a mental health diagnosis (Newlove-Delgado et al., 2022). Within the same cohort, only 13.9 % of those identified as having a 'probable' mental health disorder received a mental health diagnosis (Newlove-Delgado et al., 2022). Furthermore, clinicians sometimes express ambiguity in their diagnostic language, using terminologies such as 'traits' or 'above threshold' rather than assigning diagnoses in CAMHS settings (O'Connor et al., 2020). In the 'possible' bipolar disorder subgroup, approximately 90 % of children and young people had their index or subsequent referrals accepted by CAMHS. This subgroup was also the most likely to be offered or started on treatment, out of the three subgroups. This could be interpreted as CAMHS clinicians identifying and treating children and young people at risk of bipolar disorder, albeit with and for other things.

The literature shows minimal sex differences, or a slight female preponderance, in bipolar disorder among children and young people (Duax et al., 2007; Mitchell et al., 2020; Moreno et al., 2007; Zhong et al., 2024). Our paper suggests a higher proportion of females in the 'possible' bipolar disorder subgroup. One of the reasons for the slightly higher overall global prevalence in females is hypothesised to be the greater likelihood of females accessing specialist mental health services for bipolar disorder (Zhong et al., 2024). Frequent self-harm thoughts and behaviour were common in the 'possible' bipolar disorder subgroup, which is perhaps indicative of the level of distress these children and young people experience in everyday life. These findings are concerning, but not surprising. Data from the NHS Digital in 2022 showed that the prevalence of self-harm in children and young people increases with the likelihood of having a mental health disorder (Newlove-Delgado et al., 2022). A longitudinal study in the US revealed a 34 % lifetime

prevalence of self-harm behaviours among children and young people who met the criteria for DSM-IV bipolar disorder diagnosis (Esposito-Smythers et al., 2010). Apart from self-harm, multiple studies have reported high risk and frequency of lifetime suicidal thoughts and attempts in children and young people diagnosed with bipolar disorder (Goldstein et al., 2005; Janiri et al., 2024; Lewinsohn et al., 2003). At first presentation to CAMHS, suicidal ideation was reported in a quarter of children and young people who were eventually diagnosed with bipolar disorder (Craney and Geller, 2003).

4.1. Strengths

Our sample is derived from the largest randomised controlled trial in the UK involving clinically referred children and young people to date. This trial took place at multiple clinical sites, spread across England. To classify the likelihood of bipolar disorder as carefully and robustly as possible, we specified a requirement for high symptom and impact ratings from both parent/carer and children and young people dyads for the 'possible' bipolar disorder subgroup, instead of relying solely on a single participant. By considering impact scores in categorising likelihood subgroups, this enables better capture of symptom-related impairment. The participants were followed up for 12 months, with a 99 % follow-up for service-related outcomes.

4.2. Limitations

Our study has several limitations. As a second participant's response was optional in the main trial, some participants only had responses provided by one informant. This might have led to an underestimation of 'possible' bipolar disorder cases, as we adopted a conservative approach and endorsement of high symptom and impact ratings from only a single informant resulted in children and young people being categorised in the 'uncertain' bipolar disorder subgroup. Furthermore, parent/carers' reports may not always capture children and young people's difficulties accurately, especially for less observable symptoms. This was observed in the 2004 British Child and Adolescent Mental Health Survey cohort where parent/carers' report of bipolar disorder symptoms was not significantly associated with levels of impairment, unlike children and young people's self-report (Stringaris et al., 2010). Our study also did not include measures of illness insight, which may have influenced the reporting of symptoms by children and young people. Finally, when stratifying bipolar disorder subgroups, we focussed on high symptom and impact scores in the mania section of DAWBA but did not incorporate scores in the depression section at the time of entry to the STADIA trial. By doing this, we may have missed children and young people who might have gone on to develop bipolar disorder but initially presented to services with depression rather than mania. Urgent referrals were excluded from the STADIA trial, which may have led to an underestimation of the number of 'possible' bipolar disorder cases.

4.3. Clinical implications

Our paper highlights that children and young people in the 'possible' bipolar disorder subgroup had high levels of difficulties on other mental health domains, persisting over time, and high levels of self-harm thoughts and behaviours. This underscores the need for timely detection and intervention especially because these children and young people have been clinically referred to services. CAMHS clinicians may be somewhat reassured by our findings that children and young people in the 'possible' bipolar disorder subgroup are more likely to be identified, diagnosed, and treated for other emotional disorders. Clinicians should also be aware that bipolar disorder symptoms in children and young people are often non-specific and consider the presence of disorders such as ADHD, conduct disorder, and depression for those with bipolar disorder symptoms. It is also vital to recognise that the onset of bipolar disorder is often during adolescence and presentation to CAMHS with symptoms suggestive of bipolar disorder may be an opportunity to provide timely treatment and support, given that retrospective studies of young adults with bipolar disorder highlight past contact with CAMHS (O'Hare et al., 2025). Given the high self-harm risks and rates of other comorbid emotional disorders, active support and monitoring are essential. While bipolar disorder is not commonly diagnosed in children and young people in the UK, it should not be overlooked as a differential diagnosis in CAMHS as bipolar disorder is the third leading cause of burden of mental health disorders among 15–24-year-olds and the global incidence rates of bipolar disorder in this age group has continued to increase steadily since 1990 (Zhong et al., 2024). The absence of clinician-made bipolar disorder diagnoses could indicate a tendency toward conservative diagnostic practices among UK clinicians which needs to be addressed to avoid underdiagnosis of mental health disorders.

5. Conclusion

Around 3 % of children and young people with emotional difficulties referred to CAMHS as routine referrals had 'possible' bipolar disorder. Children and young people in the 'possible' bipolar disorder subgroup were more likely to have their referrals accepted by CAMHS and to be offered treatment/intervention. At both baseline and 12-month follow-up, they also reported frequent self-harm thoughts and behaviours and had high scores across other mental health questionnaire domains, reflecting significant emotional and behavioural difficulties. Further research is needed to better understand the clinical presentation of children and young people who are likely to have or go on to develop bipolar disorder to ensure that those who most require support and intervention are not missed by CAMHS. Additionally, more studies are required to explore the long-term outcomes of bipolar disorder in children and young people, especially in clinically referred populations.

CRediT authorship contribution statement

Sue Fen Tan: Writing – review & editing, Writing – original draft. **Eleni Frisira:** Writing – review & editing. **Chris Partlett:** Formal analysis, Data curation. **Grace Holt:** Formal analysis, Data curation. **Argyris Stringaris:** Writing – review & editing. **Aditya Sharma:** Writing – review & editing. **Kapil Sayal:** Writing – review & editing, Supervision, Conceptualization.

Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the author used ChatGPT in order to improve the readability and language of the manuscript. After using this tool, the author reviewed and edited the content as needed and take full responsibility for the content of the published article.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

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