

## INVITED ARTICLE

# Outcomes for Adaptive Mentalization Based Integrative Treatment informed care for adolescents using a deployment-based approach

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## Abstract

**Purpose:** Adolescent mentalisation-based integrative therapy (AMBIT) is a whole-systems approach designed to enhance the effectiveness and coordination of care for clients experiencing severe and pervasive difficulties in social and health care settings, who have not responded to traditional clinical approaches. AMBIT is a team-based manualised method that primarily aims to bolster mental state understanding and discourse focused on the client within and between teams. Over 300 teams worldwide have been trained in and adhere to AMBIT principles.

**Method:** In this paper, we review and summarise the outcomes reported by eight AMBIT-informed teams that have published their findings with young people. Each report is discussed, and limitations of the data provided are identified.

**Results:** A synthesis of the findings across the studies suggests a generally positive impact of teams informed by AMBIT with moderate to large effect sizes on reducing symptoms and improving functionality.

**Conclusions:** This study suggests that AMBIT may be a promising approach for young people with multiple problems but further research is needed to identify the active mechanisms of change in complex helping systems.

## KEYWORDS

community approaches, integrated care, mentalisation, outcomes, relationship to help

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### Practitioner points

- A mentalisation-based approach such as AMBIT may be helpful for teams to provide effective care for those with multiple and severe needs including mental health needs.
- Integrated/coordinated care involving several teams around a shared client may benefit from a mentalised approach to such care (i.e., that they consider each other's states of mind) as part of their work.
- Effective help may benefit from focusing on who the client sees as helpful and who they trust as much as who has the expertise that they need.
- Many agencies contribute to supporting clients with mental health needs and staff from a wide range of agencies can be trained in a shared, non-specialist mentalisation-based approach to their work with clients with severe needs.

## INTRODUCTION

AMBIT (Adolescent Mentalisation-based Integrative Therapy) is an approach for teams, inspired by the work of Fonagy and colleagues (Bateman & Fonagy, 2019; Fonagy et al., 2002), and has been detailed in previous publications (Bevington et al., 2013; Bevington & Fuggle, 2012; Duffy et al., 2016; Fuggle et al., 2015), including a comprehensive guide describing the principles, methods, and techniques of the approach (Bevington et al., 2017), as well as an implementation guide discussing a variety of international applications (Fuggle et al., 2023). This paper aims to review the current evidence supporting the AMBIT approach.

Developed over the past 15 years at the Anna Freud Centre in London, in collaboration with numerous teams worldwide, AMBIT was designed to address the needs of clients with severe and pervasive difficulties who are rarely seen in clinic-based appointment organised mental health or social care services. These clients have two defining features: (a) the severity and pervasiveness of their life problems, and (b) a history of poor experiences with mostly ineffective help, which explains their rejection of mainstream services. AMBIT posits that high levels of epistemic mistrust, on both sides, can undermine standard service delivery efforts (Bevington et al., 2017; Fonagy et al., 2019; Fonagy & Allison, 2014). Epistemic trust is a state of mind wherein another individual is perceived to possess knowledge of the world that is useful and relevant to one's own life situation. This trust is cultivated when a person feels understood, and their experience of the world is respected, including making sense of distrust arising from negative life experiences or other reasons.

Focusing on the client's relationship to help, the critical outcome of AMBIT is enabling the client to become open to the possibility that some parts of the social world may be helpful in meeting their needs (Fonagy et al., 2019). This is rarely achievable by practitioners working alone. AMBIT is a team approach applying mentalising to an entire system, including working with clients, working in teams, working across networks, and team learning. All four components are necessary to develop an effective helping system around the client. The approach is inclusive of evidence-based methods of help relevant to the client's needs and is not designed for one diagnostic group or one type of service provision.

AMBIT-informed teams do not provide an exclusive intervention and outcomes should not be uniquely attributed to AMBIT methods alone. The aim is to achieve outcomes comparable to clients who are more able to access professional help. The approach follows the "deployment-focused" model of development (Weisz & Simpson-Gray, 2008), which advocates for front-line practitioner input and feedback from routine practice as a key element for effective model building and improved practice. It has an open-source manual available at <https://manuals.annafreud.org/ambit/index.html>, containing material about all aspects of the model. Since 2011, AMBIT training has been provided for over 300 teams, primarily in the UK, Europe, Australia, and in the United States. A number of these teams have carried out locally tailored outcome evaluations and their service reports and published studies form the basis of this paper.

AMBIT presents challenges to standard methods of evaluating effectiveness and utility due to its non-specificity to a single mental health problem and its focus on a service context. Instead, it aims to strengthen helping systems, fitting as closely as possible with local service ecologies, and does not exclude other therapeutic interventions. This makes rigorous control challenging for any evaluation. This paper is a narrative review of outcome data from various, heterogeneous implementations of AMBIT, using a realist narrative review of these findings to assess the usefulness of the approach (Pawson & Tilley, 2004; Tilley & Pawson, 1997) in specific contexts. The paper acknowledges the complexity and variability of AMBIT implementations and examines the available evidence to determine the extent to which AMBIT, as a whole-systems approach, helps services address the needs of clients with severe and pervasive difficulties in these diverse settings.

## METHOD

We conducted a search for outcome data from teams that had completed AMBIT training, focusing on data published in peer-reviewed journals or as local service reports. We also reached out to services for publications or reports containing quantitative data. Most services included in this review work with client populations that have previously received extensive support and are considered unable to make use of mainstream services. To be included in the review, any report had to meet the following criteria: (1) data were systematically collected on participants over a known period of time; (2) measures were based on assessments using objective measures (e.g., standardised tests, verifiable indicators of service use, and clinical rating scales with known reliability); (3) there was an opportunity for comparison, either across teams with or without training, before or after training, or expected outcomes without training based on robust national norms.

All services met the criteria for being AMBIT-informed teams. They received the basic four-day AMBIT training and provided AMBIT training sessions to other teams in their network. Self-report audits were obtained from team leaders regarding the on-going implementation of AMBIT practices using the AMBIT Informed Practice Audit tool which covered 15 key AMBIT principles and practices (use of mentalising (five items), AMBIT techniques (five items), and AMBIT methods of team learning (five items)). All items were rated based on whether they occurred 'most of the time', 'some of the time', or 'hardly at all'. The tool had a possible total score of 50, with higher scores indicating higher levels of AMBIT-informed practice. All teams in this study had audit scores of 40 or above, demonstrating that AMBIT had significantly informed their practice.

## Services and sample

We were able to obtain published or publicly available reports from eight sites that met the established criteria. These included four specialist adolescent mental health teams working with young people with severe psychiatric disorders; the Specialist Lothian CAMHS Service, Edinburgh, Scotland; the Bexley Outreach Team London, England; the Darwin Specialist Adolescent Unit (in-patient and day patient), Cambridge, England; the Assertive Mobile Youth Outreach Service (AMYOS) Brisbane, Australia: two joint social care and mental health teams; the Camden Transformation Team London, England; the Adolescent Multi-Agency Support Service (AMASS), London, England working with families at risk of family breakdown: a specialist substance use team, the Cambridgeshire Child and Adolescent Substance Use Service (CASUS), Cambridge, England: a specialist pupil reintegration team, the U-start Team, Copenhagen, Denmark. Where services had reported accumulating outcomes over several papers, the most recent data with the largest sample of cases were selected. More details about each service including the target population, the sample obtained, the intervention offered, and its level of AMBIT-informed practice along with the key published studies are provided in the online supplement to this paper (Data S1).

## Measures

Overall, 1856 participants were assessed using 13 client outcomes and three service measures. The details of these measures are provided in the online supplement and the acronyms for the measures used for each

**TABLE 1** Summary table of AMBIT-informed teams, measures used, outcomes obtained, and test of impact.

Type of service						
Location	Study	Main agency	Client group	Program type	Total N	Measure
Edinburgh	Griffiths et al. (2016)	Mental Health	YP with severe MH needs	Specialist outreach treatment	161	WHOQOL-B--(QOL-psychological) (QOL-physical)  (QOL-social) (QOL-environmental) BYI (Self-concept) (Anxiety) (Depression)
Edinburgh	Thomson et al. (2019)	Mental health	YP with psychosis	Early intervention for Psychosis (EIP)	141	PANNS - Positive symptoms Negative symptoms Excitement Emotional Disorganisation BDI
Cambridgeshire	Fuggle et al. (2021)	Mental Health	YP with substance misuse	Specialist substance misuse treatment	499	TOP-Cannabis use: mean days per month Alcohol use: mean days per month AIM Total Score Key problem Score
Islington	Talbot et al. (2020)	Social Care	Families at risk of breakdown	Specialist multi-agency treatment	181	Stable family/placement Stable family/placement age 16 follow up SDQ (Parent) Total Score Behaviour Subscale Impact Subscale McMaster FAD
Cambridge	Fairbairn (2021)	Mental Health	YP with severe mental health needs	CAMHS In-patient and day patient treatment	331	CGAS SDQ (young person) SDQ (parent) HONOSCA (parent rated) HONOSCA (young person) RCADS (young person)
Brisbane	Daubney et al. (2021)	Mental Health	YP with severe mental health needs	MH Outreach Team	243	CGAS HONOSCA (clinician rated) SDQ (parent) Average monthly admissions ( <i>n</i> ) Average monthly admissions (days)

service are shown in Table 1 including widely used measures such as the SDQ, HONOSCA and CGAS alongside more specialist measures such as, for example, the Treatment Outcomes Profile (TOP) for substance use and locally devised measures such as the AMASS Outcomes Scale (AOS). Some studies assessed service outcomes such as the frequency of hospital admissions or the number of pupils attending school regularly.

Pre-treatment				Post-treatment				Test of impact			Pre-post effect size
N	Mean	SD	%	N	Mean	SD	n (%)	Difference	Test of significance	p value	
107	14.23	5.65		50	15.98	5.83		-1.75	$\chi^2(1) = 11.66$	.001	0.31
105	17.96	8.12		50	21.06	7.44		-3.10	$\chi^2(1) = 6.60$ $p = .010$	.010	0.40
107	10.99	3.85		50	11.02	3.82		-0.03		ns	0.01
107	22.83	10.27		50	26.68	9.57		-3.85	$\chi^2(1) = 6.60$	.010	0.37
98	34.41	11.93		34	38.48	10.28		-4.07	$\chi^2(1) = 4.91$	.027	0.36
69	66.14	14.45		20	52.73	14.78		13.40	$\chi^2(1) = 5.53$	0.019	0.93
100	66.49	15.83		32	58.04	14.96		8.45	$\chi^2(1) = 5.31$	.021	0.54
76	23.53	7.28		63	16.44	7.47		7.08	$t = 5.81$	.001	1.07
89	21.18	8.60		63	16.86	8.77		4.32	$t = 3.28$	.002	0.46
75	18.80	7.75		63	15.24	7.05		3.56	$t = 3.59$	.001	1.09
92	17.14	6.43		63	11.83	4.71		5.32	$t = 5.84$	.001	0.94
93	20.75	6.87		63	15.02	6.44		5.74	$t = 6.18$	.001	0.57
100	23.62	15.123		78	19.29	12.47		4.33	$t = 2.81$	.008	0.46
383	16.23	10.82		383	9.56	10.58		6.67	$t = 10.78$	.001	0.61
383	5.2	5.84		383	2.68	4.47		2.52	$t = 6.938$	.001	0.44
100	27.89	11.98		100	13.43	11.12		14.46	$t = 8.324$	.001	1.23
100	2.48	0.63		100	1.14	0.96		1.34	$t = 14.722$	.001	1.47
181			0	149			82	82%			
128			0				69				
106	21.28	6.74		60	17.98	6.69		3.30		NS	0.35
46	5.67	2.48		46	3.93	2.27		1.74	$\zeta = 3.93$	.001	0.75
46	4.24	2.51		46	3.04	2.54		1.2	$\zeta = -0.2.6$	.01	0.48
48	2.38	0.49		48	2.05	0.53		0.33	$t = 3.54$	.001	0.46
314	38.29	10.65		289	49.82	10.65		11.53			1.08
96	20.41	6.31		64	17.64	6.31		2.77			0.44
99	27.11	6.33		89	25.07	6.33		2.04			0.32
104	23.3	9.16		59	17.01	9.16		6.29			0.68
234	24.49	9.86		105	16.12	9.86		8.37			0.84
63	71.8	15.02		44	61.2	15.02		10.6			0.7
214	47.37	10.50		214	59.66	12.40		12.29	$F = 151.26$	.001	1.68
204	21.53	7.03		204	14.97	8.73		6.56	$F = 95.97$	.001	1.37
81	21.69	5.46		81	18.30	6.77		3.39	$F = 21.35$	.001	1.03
243	0.12	0.22		243	0.09	0.21		0.03	$\chi^2 = 15.23$	.00	0.31
243	1.36	2.64		243	0.78	2.29		0.58	$\chi^2 = 21.76$	.00	0.47

TABLE 1 (Continued)

Type of service						
Location	Study	Main agency	Client group	Program type	Total <i>N</i>	Measure
Bexley	Harmon (2013)	Mental Health	YP with severe MH needs	MH Outreach Team	191	4 years average total bed days 4 years average length of stay (days) 4 years average in-patient costs (£)
Camden	Pilling et al. (2014)	Social Care	Families with multiple severe needs	Family Intervention	64	% meeting Troubled Families criteria of multiple needs (TFMN)
Denmark	Stokholm et al. (2019)	Education	YP not attending school	Specialist multi-agency outreach treatment	45	% Regularly attending school
					<i>N</i>	
Totals					1856	

## Statistical analysis

To ensure a degree of comparability, we standardised all outcomes as standardised mean differences (SMDs) between pre- and post-measurement points (reported as Cohen's *d*). When means and standard deviations were not available, we attempted to calculate alternative estimates of effect size. If results of statistical tests were reported, we included these in the aggregated data table (see Table 1). When the necessary data were available, we calculated proportions that achieved greater than reliable change using the formula from Jacobson and Truax (1991), where the size of difference between Time 1 and Time 2 needs to be greater than the standard error (*SE*) of the difference multiplied by 1.96, adjusted for the correlation between measurement points.

## RESULTS, EVALUATION, AND LIMITATIONS OF EACH SERVICE OUTCOME

The outcomes from these studies have been summarised in Table 1, showing the type of service, sample size, measures used, pre- and post-treatment scores, and effect size for each study.

### Specialist Lothian CAMHS, Edinburgh, Scotland

#### Results

The Specialist Outreach Service reported the intervention modestly improved quality of life (WHO-QOL-B) across physical ( $d=0.40$ ), psychological ( $d=0.31$ ), and environmental ( $d=0.37$ ) domains. The impact was greater on mental health variables, with significant improvement in mood (depression;  $d=0.54$ ) and anxiety ( $d=0.93$ ; Table 1). Self-report measures showed marked improvement on pre/post-tests (McNemar's test), reaching statistical significance on all but one measured domain (quality of social life). The most promising result was the level of engagement of the traditionally hard-to-reach group, with over 80% of appointments offered being attended.

Analysis of the outcomes of the Early Psychosis Support Services (EPSS) for 141 young people who attended the service between May 2005 and August 2017 (Thomson et al., 2019) showed symptom

Pre-treatment			Post-treatment				Test of impact				
<i>N</i>	Mean	<i>SD</i>	%	<i>N</i>	Mean	<i>SD</i>	<i>n</i> (%)	Difference	Test of significance	<i>p</i> value	Pre-post effect size
198	2421	783		191	1094	537		1327			2.79
	122				83.7			38.3			
	11,23,330				7,23,300			4,00,021			
30			100	30			22	78%			
28			0	28			71	71%			
1584				1412							

improvement over 12 months which reached both clinical and statistical significance across all measured domains. As shown in the previous analysis (Griffiths et al., 2016), engagement was high in comparison with other similar services.

### Evaluation and limitations

Improvements observed showed substantial change in terms of the arbitrary cut-offs of the self-report measures used, although the mean changes were small. As with almost all the studies in this review, regression of extreme scores to the mean cannot be discounted as a possible explanation of the results. There is a significant increase in the proportion of missing data from T1 to T2 (~60%), which raises the possibility that those with the worst outcomes escaped reassessment. Data loss in the EPSS service is only 25% which gives one greater confidence in the validity of improvements. Compared to meta-analytic results, these changes are impressive and certainly suggest the service achieves good outcomes.

## Cambridgeshire adolescent substance use service (CASUS)

### Results

Cannabis was used by 81% and alcohol by 63% of those treated by the service and reduced by an average of 40% during treatment. Monthly daily use of cannabis reduced from 16.23 (*SD* 10.82) days to 9.56 (*SD* 10.58), with a medium effect size of 0.61. For the more severe group, overall functioning showed significant improvement on total functioning scores from 27.89 (11.98) to 13.43 (11.12), with an effect size of  $d=1.23$ . Over half the cases (56.5%) showed reliable improvement using the Jacobson and Truax formula, with only 2.2% showing reliable deterioration. Eighty percent of key problems were problems other than substance use, e.g., 31% had anti-social peer relationship difficulties. Total problem scores were substantially reduced from 2.48 (0.63) to 1.14 (0.96), associated with a large effect size of  $d=1.47$ .

## Evaluation and limitations

A strong feature of the CASUS study is the rigorous adherence to the outcomes protocol, with all those providing data at pre-treatment also contributing at T2. The reductions of substance use achieved are somewhat (but not statistically significantly) higher than the meta-analytic results reported in the literature. Data on the functional outcomes is important, given that a very significant proportion of these individuals identified mental health, relationship, and school/employment problems as key. The improvement on the goal attainment scaling (personalised outcomes) measure is encouraging, and halving of what are felt to be key problems and the small proportion showing significant deterioration suggests an efficacious service.

## Adolescent multi-agency support service (AMASS)

### Results

End of treatment client outcomes indicated significant improvements in parent-rated behaviour problems ( $d=0.75$ ) and family relationships ( $d=0.46$ ; Table 1), but not on overall mental health as indicated by Parent SDQ total score, which showed a trend towards improvement (21.28 (6.74) vs. 17.98 (6.69)). The number of young people with mental health needs in the clinical range (SDQ) reduced by 18% from 76% to 58%, with a significant decrease in behaviour problems. These changes do not exceed those expected through regression to the mean or spontaneous improvement (Ford et al., 2009). Similar reductions in cases meeting clinical thresholds were reported for family functioning (77% to 59%). Stable placement was achieved at the end of intervention for 149 (82%) young people across the three categories (home stability, foster placement stability, and return home from care). For non-completers (those withdrawn from the service by social worker or parent), 54% achieved stable care. Local authority records were used for long-term follow-up of completed cases when young people reached 16 years old. Of this group ( $n=128$ ), 81 (69%) were not in local authority care or had remained within their foster placements.

## Evaluation and limitations

The programme's aim, stability of care, was achieved for 82%–87% of those accepted for the programme. The percent benefitting in this way was increased amongst those who completed the programme', although the breakdown of the placement may have been one of the reasons for not completing the protocol (inverse causality). One limitation is the relatively small percentage of cases for whom paired psychometric outcomes are available (27%). Although this figure is not different from national norms for outcome data, the limited numbers for whom this is available suggests we treat the observations about psychological change with caution.

## The Darwin specialist adolescent unit

### Results

Baseline pre-AMBIT outcome data indicated that mean CGAS scores increased from the 31–40 range to the 41–50 range on discharge. Following AMBIT training, overall functioning remained the same on admission (31–40 range) but increased to the 51–60 range at discharge for each of the years between 2014 and 2019. The CGAS average scores for 2014–2019 improved from 38.28 (10.65) to 49.82 (10.65),



showing a large effect size of 1.08. Smaller effect sizes were shown for overall mental health (Parent SDQ:  $d=0.32$  and YP SDQ:  $d=0.44$ ) at discharge. Parent-rated HONOSCA improved from 23.3 (9.16) at admission to 17.01 (9.16) at discharge, showing a medium effect size of  $d=0.68$ . Psychiatric symptoms as rated by young people (YP HONOSCA) improved from 24.49 at admission to 16.12 at discharge ( $d=0.84$ ).

## Evaluation and limitations

Studies of outcomes of in-patient care for adolescents have indicated symptom improvements during admission (Hayes et al., 2018; Kennedy et al., 2020), although there remain risks in separating the young person from their social network (Gowers & Rowlands, 2005). The data in this review involve multiple perspectives as well as over a prolonged time period. In this respect, comparators are hard to find (for an exception see Lee et al., 2018), and samples tend to be too small to provide a helpful indicator of relative benefit. The historical improvement associated with AMBIT training is encouraging, especially as the trend over this period was for the profile of cases to increase in severity. Nevertheless, the changes on the SDQ are small although the effect size of improvements on the HoNOSCA is more encouraging, noting that the instrument is biased towards clinician views.

## Brisbane AMYOS (assertive Mobile youth outreach service)

### Results

Significant client improvements in functioning were indicated by large changes in CGAS ( $d=1.68$ ), moving CGAS from mid-40s to an average CGAS of 60. Symptom improvement also showed a large effect size, where clinician-rated HONOSCA was reduced from severe disorder (21.53) to moderate/mild disorder (14.97) with a large effect size ( $d=1.37$ ). Parent-rated SDQ scores also suggested substantial decrease of general pathology ( $d=1.03$ ). Medium effect sizes were shown for reductions in the number of admissions ( $d=0.31$ ) and days in hospital almost halved ( $d=0.47$ ).

### Evaluation and limitations

This large and impressive study showed powerful effects with high data completion being a further indication of exceptional engagement, where the majority were previously disengaged from education and a significant minority were involved with the criminal justice system. Because of the range of treatment options available, the unique contribution of AMBIT cannot be established with confidence but perhaps had value in increasing integrated and coordinated care.

## The Bexley outreach team

### Results

Prior to the setting up of the new team, the total four-year average annual bed days within in-patient care for young people in the Bexley area was 2421. The subsequent four-year average was 1094 ( $d=2.79$ ). Similar reductions in length of stay were also reported, with a reduction of 122 to an average of 83.7 days. In-patient costs were reduced by approximately 40% over the same period.

## Evaluation and limitations

The study has the advantage of historical service use data, with figures indicating a reduction in bed days. Earlier discharges and fewer admissions were not associated with an increase of suicides and severe mental disorder at a time when clinical severity has been increasing across the UK. Even if the new service provided by the Bexley Outreach Team is not the only driver of reduced admissions and bed days, it is hard to argue that AMBIT and the other linked services did not play a significant part reducing its reliance on inpatient care.

## The Camden transformation team

### Results

The evaluation compared those who chose to continue with normal care ( $n=34$ ) and those who opted to take up care provided by the Transformation Team ( $n=30$ ). Both groups were similar in relation to levels of need, complexity, and meeting the criteria for the service. 78% of the Transformation Team families showed improved school attendance, reduced anti-social behaviour, reduced offending, and increased employment (of adult family members) compared with 68% of those families who received standard care. The average number of services involved for families in the Transformation Team group fell from nine to four during the intervention. There was no similar decrease in the normal care group.

## Evaluation and limitations

This modest study with a small sample is perhaps one of the clearer indicators of the type of benefit AMBIT can bring to a community. Service users had a reduced number of agencies involved in providing care and this was at least as effective as traditional care if not marginally better. There was no difference in terms of severity between the two arms, so the findings appear to confirm the value of AMBIT in reducing system complexity in exceptionally complex cases.

## The U-start team

### Results

Twenty out of 28 pupils had returned to normal school participation following the intervention (some with reduced timetables) and eight pupils had begun attending special education schools. Following the 2-year project, all four schools reported that they did not have any long-term absent students and attributed this to the work of the new service.

## Evaluation and limitations

This study shows above-average rates of returning to school following prolonged absences. Absence from school has many causes and is generally regarded as difficult to treat. In this study, the recovery rate was high (71%). Perhaps, more impressive is the implicit impact of the AMBIT-inspired intervention on the schools and that the reduction of long-term absence in schools is related to a shared approach fostered with the schools, which is a key aspect of the AMBIT approach.

## DISCUSSION

We have presented studies examining the outcomes of AMBIT-informed teams, which have demonstrated medium to large effect sizes on symptom measures, measures of functioning and changes in use of services, albeit these effects are uncontrolled. AMBIT is a comprehensive systems approach that supports clients in accessing help tailored to their needs and the integration of evidence-based approaches for specific client groups is central to its holistic approach. These studies cannot isolate the unique contribution of specific AMBIT principles and practices from other evidence-based practices that teams were appropriately offering to their clients. For instance, CASUS work with substance misuse includes motivational interviewing as part of effective practice. Similarly, for AMASS working with families at risk of breakdown, the use of evidence-based approaches to support parents in managing high family conflict was essential to the overall approach.

We acknowledge that the degree to which a team is informed by AMBIT varies. Two of the services (CASUS and AMASS) were developer sites for AMBIT so that its principles and practices were integral to the entire service culture. These teams were both compliant on 14 out of 15 key AMBIT practices. Similarly, the Camden Transformation Team, Bexley Outreach, and UStart teams were explicitly designed to follow AMBIT principles. Three of the teams combined AMBIT with other intervention models. AMYOS is an Assertive Community Treatment (ACT) service adopting an assertive outreach model of practice also trained in both Mentalisation-based Treatment (MBT) and AMBIT. Similarly, the Edinburgh Early Psychosis Service was designed as an early intervention for psychosis (EIP) team supported by AMBIT principles. The Darwin Centre provided comprehensive in-patient and day centre services for which AMBIT offered an approach relevant to specific team, network, or client issues. Even in these more mixed team contexts, audit ratings indicated a high level of AMBIT-informed practice.

Despite these caveats, we believe these results are encouraging, as these AMBIT-informed teams work with young people who exhibit many factors that limit the effectiveness of psychological interventions, including an insecure attachment style, a lack of client choice, non-adaptive coping styles, high levels of client resistance, and a pre-contemplative view of change (Norcross & Wampold, 2019). In addition to these general vulnerabilities, the teams work with clients who routinely actively reject help, persistently refuse contacts and explicitly disparage the help offered and are a group rarely seen in mainstream services. Comparisons with national or local comparators may enhance our understanding of these results. For example, outreach teams have been shown to produce some reduction in the use of in-patient care (Kwok et al., 2016); however, the size of the reductions in in-patient care have generally been smaller than reported here. For both Bexley and Brisbane, the use of hospital care was approximately halved. For substance misuse, national reports collected by the NDA (Ministry of Housing, Communities, & Local Government, 2019; Public Health England, 2017) reported a mean reduction in substance use of 3.4 days per month, whereas the CASUS team achieved a reduction approximately twice this, at 6.67 days. Overall, these results seem to indicate that, despite the initial often severe distrust of services, AMBIT-informed teams were producing outcomes comparable to evidence-based approaches for similar client populations.

Recent reviews of psychotherapy outcomes Jones et al. (2020), Norcross and Lambert (2019) suggest that even if psychotherapy for young people were delivered in the most optimal way, effect sizes would remain modest. They argue that clinic-based psychotherapy alone cannot deliver the magnitude of change needed. Norcross and Lambert (2019) estimate that 40% of the known variance in psychotherapy outcomes is likely determined by “extra-therapeutic change,” such as self-change, social support, and ‘fortuitous events’, a proportion of variance even larger than their estimated benefit of psychotherapy itself (30%). We suggest that AMBIT focuses on enabling the multi-person, multi-agency helping system surrounding the young person to work in a more understanding (mentalised) and less conflicted way, essentially to facilitate “fortuitous events.” Reducing dissonance in the parallel help provided to clients seen by AMBIT-informed teams may be critical to supporting effective change.

Taking these findings together AMBIT emerges as a potentially effective intervention. Which of its potentially effective components may account for the positive changes observed? There are several potential mechanisms of change:

1. *Focus on mentalising*: AMBIT emphasises the development of mentalising skills, which involve understanding one's own and others' thoughts, feelings, and intentions. This potentially helps improve relationships, communication, and empathy between clients and service providers, and equally importantly between service providers, leading to better engagement and more effective treatment.
2. *Integrative approach*: AMBIT is an inclusive treatment model that supports clients in accessing various forms of help tailored to their needs allowing AMBIT-informed teams to more effectively utilise evidence-based practices specific to the client group they serve, leading to more targeted and effective interventions.
3. *Collaboration and network building*: AMBIT asserts that collaboration between multiple agencies, service providers, and individuals is essential for client care, creating more coherent and supportive help by reducing potential conflicts and dissonance between different sources of help.
4. *Addressing distrust and engagement*: AMBIT is explicit in focusing on the problem of mistrust. By adopting a mentalising stance, AMBIT-informed teams may be able to support clients where their distrust makes sense based on their life experience and is a barrier to accessing help.
5. *Adaptability*: AMBIT is adaptable to various settings and client groups, making it an appealing approach for diverse teams and services. This allows AMBIT to be applied in a wider range of contexts, enhancing its effectiveness as an intervention.

While AMBIT has shown some promise in helping clients with multiple needs, more research and evaluation are needed to enable us to understand which of these or other crucial components of this approach contribute to its long-term effectiveness. This study has important limitations, and we cannot rule out bias in the selection of reports, as services with results that do not show improvement are unlikely to have been written up for publication. Also, bidirectional effects may occur so that positive results were achieved by well-functioning, creative teams that supported training for their staff that would achieve effective outcomes anyway. The motivation and creativity of the teams involved in these studies were not created by AMBIT training. But, for AMBIT, the key question is not whether it outperforms other evidence-based interventions but whether it strengthens existing practice and systems to create an integrated helping system that enables clients to access effective help in the context of high levels of mistrust in clients and between services. The results reviewed here suggest some grounds for optimism and are promising enough to justify more comprehensive whole-systems research in which the crucial mechanisms of this work can be more comprehensively examined.

## AUTHOR CONTRIBUTIONS

**Peter Fuggle**: Conceptualization; data curation; formal analysis; investigation; methodology; writing – original draft. **James Fairbairn**: Conceptualization; data curation; formal analysis; methodology; writing – original draft; writing – review and editing. **Peter Fonagy**: Conceptualization; formal analysis; investigation; methodology; writing – review and editing.

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## CONFLICT OF INTEREST STATEMENT

None declared.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study will be openly available in the online AMBIT manual at [manuals.annafreud.org/ambit/index.html](https://manuals.annafreud.org/ambit/index.html).

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

### Data S1

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