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Balancing Improvement, Continuation, and Tolerability in Early Outpatient Psychotherapy : A Bayesian Decision- Robustness Study of Adolescent and Young-Adult Care

Patrick D. Skosnik

ABSTRACT

Decisions in adolescent and young-adult outpatient psychiatry are rarely governed by symptom change alone. A treatment may produce substantial clinical improvement yet be difficult to continue, while a highly acceptable treatment may yield modest change. Conventional single-endpoint comparisons do not show whether a service preference remains defensible when clinicians, patients, and families assign different importance to improvement, continuation, and tolerability. This study asked whether the comparative value of metacognitive-interpersonal-therapy (MIT)-integrated psychotherapy remains positive across plausible priorities for clinical change, treatment continuation, and event-free care. Group summaries from 57 psychotherapy recipients aged 13–23 years were combined with treatment-continuation and adverse-event counts. A Bayesian Joint-Care Priority Surface was developed. Directional difference-in-change distributions were estimated for functioning, psychiatric symptoms, and clinician-rated severity while varying the unknown within-person correlation. Jeffreys-prior beta–binomial models estimated continuation and event-free probabilities. Each posterior draw was converted to a bounded, scale-independent advantage, and 861 weight combinations were evaluated across the three decision domains. Two hundred thousand draws were used for the principal analysis. Prior concentration and within-person correlation were varied in computational stress tests. Directional advantages favored MIT-integrated care for functioning (mean difference-in-change 0.660, 95% credible interval [CrI] 0.092 to 1.227; probability of benefit 0.989), psychiatric symptoms (10.030, 95% CrI 4.127 to 15.965; probability 1.000), and clinician-rated severity (0.280, 95% CrI -0.276 to 0.838; probability 0.836). Continuation favored MIT-integrated care probabilistically (risk difference 0.106, 95% CrI -0.107 to 0.291; probability 0.855), whereas event-free care was practically balanced (risk difference -0.021, 95% CrI -0.241 to 0.167; probability 0.440). Under equal domain weights, the joint score was positive in 94.7% of draws. At least 80% support occurred in 75.3% of the weight grid. Stress-test probabilities ranged from 0.859 to 0.953. The paper's research question is answered affirmatively but conditionally: MIT-integrated psychotherapy retains positive comparative value for most reasonable priority combinations because the symptom and functioning signals outweigh neutral tolerability evidence. A preference cannot be justified when near-exclusive weight is placed on event-free care. The result supports a monitored service preference rather than an unconditional claim of therapeutic superiority.

Keywords: adolescent mental health; young adults; outpatient psychotherapy; Bayesian decision analysis; treatment continuation; tolerability; benefit–risk assessment

Department of Psychiatry, Yale School of Medicine, New Haven, CT, USA
p.skosnik@northeastern.edu

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1. INTRODUCTION

Mental disorders that emerge during adolescence and early adulthood can interrupt education, identity formation, family participation, and the acquisition of independent social roles. International estimates consistently place the first onset of a substantial proportion of lifetime mental disorders before adulthood, while health systems often confront delayed recognition and fragmented transitions between child and adult services.[1–3] Anxiety, depressive symptoms, emotional dysregulation, self-harm, and social withdrawal may coexist even when no single diagnostic category captures the young person's principal difficulty. Longitudinal evidence further indicates that adolescent anxiety can persist or recur across the transition to adulthood, making timely outpatient care a developmental intervention as well as a response to current distress.[4,5]

The effects of psychological distress extend beyond a symptom inventory. Academic disengagement, school absence, conflict with parents, reduced peer contact, substance use, and suicidal behavior can become mutually reinforcing. Preventive and psychotherapeutic programs therefore need outcomes that represent both relief and restored participation. Reviews of cognitive-behavioral, interpersonal, and third-wave treatments show meaningful average benefit, but remission is incomplete and treatment effects vary across diagnoses and delivery settings.[6,7] This heterogeneity is especially important in routine clinics, where diagnostic mixtures, medication changes, family involvement, and therapist availability differ from tightly controlled trials.

The COVID-19 period intensified the need for a service-level perspective. Community restrictions, uncertainty, disrupted schooling, bereavement, and altered peer relations were associated with increases in anxiety, depressive symptoms, sleep disturbance, and academic worry among young people.[8,9] Adolescents with pre-existing attention or emotion-regulation difficulties experienced particular strain, while reviews spanning adolescents and health-care workers documented broad psychiatric consequences.[10,11] Press-report evidence also drew attention to youth suicide during lockdown conditions, although such evidence requires cautious interpretation because reporting systems cannot substitute for population surveillance.[12] These disruptions affected not only need but also referral, attendance, therapeutic alliance, and continuity.

Outpatient services must consequently make decisions under multiple objectives. Symptom improvement is important, yet a treatment that a young person does not continue cannot deliver its intended dose. Conversely, continuation is not sufficient when distress remains unchanged. Tolerability adds a third objective because medication effects, anxiety during exposure work, and ordinary somatic complaints may influence trust and attendance. A comprehensive mapping study showed that young people, parents, and therapists do not always prioritize the same outcomes after psychotherapy for adolescent depression.[13] Network evidence concerning interventions for self-harm and suicidal behavior similarly demonstrates that efficacy and acceptability should be examined together rather than treated as interchangeable constructs.[14]

Premature termination is not a peripheral administrative event. It may indicate a mismatch between treatment demands and the patient's explanatory model, practical barriers, weak alliance, rapid perceived recovery, or worsening distress. Meta-analytic estimates in adolescent depression trials show substantial and variable discontinuation, and research on psychotherapy expertise argues that quality should be demonstrated through outcomes over time rather than presumed from professional status.[15,16] An outpatient service choosing between credible psychotherapies therefore needs to know whether a clinical advantage persists after continuation and tolerability are allowed to influence the decision.

Metacognitive and mentalizing capacities offer one possible route to engagement. They concern the ability to identify mental states, distinguish thoughts from facts, recognize the opacity of another person's mind, and use this understanding to respond flexibly. Disturbances in these capacities have been documented across personality pathology and psychosis, with associations involving symptom severity, insight, social functioning, and quality of life.[17–19] In adolescence, the relation between adverse experience and borderline or narcissistic traits may be partly conveyed through atypical mentalizing, suggesting that work on self–other interpretation can have developmental relevance.[20] A treatment that helps a young person formulate wishes, emotions, interpersonal expectations, and recurrent responses may therefore complement disorder-specific techniques.

Clinical reports and small trials of metacognitively oriented psychotherapy provide encouraging but incomplete evidence. Case series in schizotypal, obsessive–compulsive, avoidant, and borderline personality presentations describe improved awareness of interpersonal patterns and greater behavioral flexibility.[21,22] A group trial in young adults with personality disorders found favorable change in metacognition and related outcomes, while alliance research suggests that metacognitive change and the therapeutic relationship can interact during brief treatment.[23,24] Embodied and imagery-based techniques have also been described as ways to make abstract interpersonal formulations experientially accessible.[25] These findings justify evaluation, but they do not authorize a single-endpoint rule for service selection.

The decisive question is therefore not merely whether one psychotherapy produced a smaller follow-up symptom score. The more useful question is whether its overall value remains positive when reasonable people disagree about what matters most. A psychiatrist concerned about acute symptom burden may emphasize clinical

Figure 1. Illustrative outpatient consultation; no participants are depicted.

Figure 2. Illustrative multidisciplinary case review; no study staff are depicted.

change; a young person who has previously left therapy may emphasize continuation; a family worried about adverse experiences may emphasize tolerability. A method that fixes one set of weights conceals this disagreement, whereas a full priority surface reveals where a preference is stable and where it reverses.

This paper develops a Bayesian Joint-Care Priority Surface for aggregate outpatient evidence. The method retains the direction and uncertainty of each endpoint, places unlike scales on bounded common coordinates, and evaluates all admissible combinations of clinical, continuation, and tolerability weights. It also treats the unreported correlation between entry and follow-up scores as an explicit sensitivity quantity rather than silently assuming independence. The primary research question is: *Does MIT-integrated psychotherapy retain positive comparative value across plausible combinations of clinical improvement, treatment continuation, and event-free care in a heterogeneous adolescent and young-adult outpatient population?* The corresponding objective is not to pronounce universal superiority, but to locate the set of priorities under which a monitored service preference is evidence-compatible.

The encounter illustrated in figure 1 emphasizes the interpersonal setting in which continuation decisions occur. The image is contextual rather than evidentiary: the analysis uses no facial, behavioral, or visual observations. Its inclusion makes explicit that attendance and benefit arise within repeated human encounters, not solely from score movement.

2. MATERIALS AND METHODS

The investigation was an aggregate-evidence Bayesian decision study. Its analytic object was the comparative service value of two outpatient psychotherapy pathways over six months: psychotherapy incorporating metacognitive interpersonal procedures and psychotherapy delivered according to routine orientations. The method did not create or infer unobserved participant records. Continuous calculations used published group means and standard errors, while binary calculations used published group counts. Posterior draws represent uncertainty distributions generated from those summaries; they are not additional patients.

The design separated three concepts that are often collapsed. Clinical change represented improvement in psychiatric symptoms, functioning, and clinician-rated severity. Continuation represented remaining in psychotherapy rather than discontinuing. Tolerability represented the probability of having no reported adverse event during care. The joint decision quantity combined these concepts only after each had been estimated separately, allowing the clinical interpretation of every component to remain visible.

2.1. Evidence record and cohort definition

The evidence record described 60 help-seeking patients aged 13–23 years who entered an early-intervention outpatient service. Three individuals did not proceed with psychotherapy; the comparative psychotherapy cohort therefore comprised 18 recipients of MIT-integrated care and 39 recipients of usual care. Group assignment followed patient preference and therapist availability rather than random allocation. Published means, standard errors, continuation counts, adverse-event counts, and diagnostic totals were transcribed once from the report.[26] No individual-level values were available to the present analysis.

The population was diagnostically heterogeneous: 30 participants had mood disorders, 15 had anxiety disorders, five had adjustment disorder, four had disruptive or impulse-control conditions, three had non-underweight eating disorders, and three had obsessive–compulsive disorder. Such heterogeneity reflects the pluripotential presentation of early mental-health difficulty, but it limits its diagnosis-specific interpretation. Half of the full cohort had a mood disorder, so the findings should not be projected mechanically to clinics dominated by psychosis, substance dependence, or severe eating pathology.

The multidisciplinary setting represented in figure 2 corresponds to the level at which the joint decision quantity is intended to be discussed. The photograph is gener-

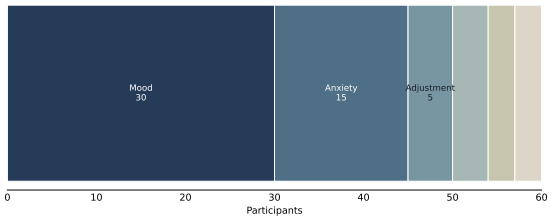

Figure 3. Diagnostic composition of the 60-person cohort.

ated and contains no clinical record. It conveys that a service choice may involve several professional perspectives, each of which can assign a different weight to symptom change, continuation, and tolerability.

The composition in figure 3 shows why a transdiagnostic decision quantity was preferable to a disorder-specific response model. Mood and anxiety disorders accounted for three quarters of the cohort, but four smaller categories contributed the remaining quarter. A model that treated the entire sample as a single depressive or anxiety cohort would therefore misdescribe the clinical population.

The quantities in table 1 were sufficient for uncertainty propagation but not for patient-level adjustment. Age, sex, diagnosis, medication, therapist, and family-treatment effects could not be entered as covariates. The analysis therefore addresses decision robustness for the reported groups, not an individualized treatment rule.

2.2. Directional differences in clinical change

For continuous outcome k, the comparative change was defined as

$$\Delta_k = d_k \left[(\bar{y}_{M,6} - \bar{y}_{M,E}) - (\bar{y}_{U,6} - \bar{y}_{U,E}) \right], \tag{1}$$

where M denotes MIT-integrated care, U denotes usual care, E denotes entry, and 6 denotes six months. The direction multiplier d_k equaled $+1$ for functioning and -1 for psychiatric symptoms and clinical severity. Positive Δ_k therefore had one consistent meaning: greater desirable change under MIT-integrated care.

Equation (1) removes the entry difference between groups before comparing follow-up movement. It is not a causal estimator in this nonrandomized setting because unmeasured differences may influence both treatment selection and outcome. Its purpose is narrower: to place the reported group movements on a coherent directional axis.

The standard error of Δ_k depends on the correlation between entry and follow-up measurements. Because that correlation was not reported, the variance was expressed as

$$\begin{aligned} V_k(\rho) = {} & SE_{M,E}^2 + SE_{M,6}^2 - 2\rho SE_{M,E} SE_{M,6} \\ & + SE_{U,E}^2 + SE_{U,6}^2 - 2\rho SE_{U,E} SE_{U,6}. \end{aligned} \tag{2}$$

The principal analysis used $\rho = 0.50$, while the stress test used 0, 0.25, 0.50, 0.75, and 0.90. A normal likelihood with a locally flat prior yielded $\Delta_k \mid \text{evidence} \sim N(\widehat{\Delta}_k, V_k)$. The tested range includes independence and strong repeated-measure association, preventing one undocumented choice from determining the conclusion.

2.3. Scale-independent clinical advantages

Functioning, psychiatric symptoms, and clinical severity use different numerical ranges. Each continuous draw was divided by the pooled entry standard deviation s_k and passed through a hyperbolic tangent:

$$B_k = \tanh\left(\frac{\Delta_k}{s_k}\right). \tag{3}$$

This transformation preserves the sign, is approximately linear near zero, and limits the influence of a single large standardized effect because B_k lies between -1 and 1. It does not assert that one standard-deviation change is a universal clinical threshold. Instead, it provides commensurable coordinates for a preference analysis while retaining each raw-unit posterior for clinical reporting.

The pooled entry standard deviation was recovered from group standard errors and sample sizes. No value was imputed for an individual participant. The clinical-domain draw was the arithmetic mean $C = (B_{\text{function}} + B_{\text{symptoms}} + B_{\text{severity}})/3$, ensuring that the three clinical outcomes shared the domain's weight equally.

2.4. Continuation and event-free care

Continuation and event-free probabilities were estimated using independent beta–binomial models. For group g and binary domain j,

$$p_{gj} \mid x_{gj}, n_g \sim \text{Beta}\left(x_{gj} + \alpha, n_g - x_{gj} + \alpha\right). \tag{4}$$

The principal calculation used the Jeffreys value $\alpha = 0.5$. Values of 1, 2, and 4 were examined to determine whether increasingly concentrated symmetric priors changed the decision. This is relevant with small event counts, for which a probability estimate can otherwise move sharply with one observation.

Each binary-domain draw was expressed through Yule's bounded odds contrast,

$$Q_j = \tanh\left\{\frac{1}{2}\left[\text{logit}(p_{Mj}) - \text{logit}(p_{Uj})\right]\right\}. \tag{5}$$

The continuation coordinate R and tolerability coordinate S are positive when MIT-integrated care has the higher posterior probability. Risk differences were also retained because they are easier to interpret clinically than odds contrasts.

2.5. Joint-care priority surface

For every posterior draw, joint value was calculated as

$$\begin{aligned} U(w_C, w_R, w_S) = {} & w_C C + w_R R + w_S S, \\ & w_C + w_R + w_S = 1, \quad w_j \geq 0. \end{aligned} \tag{6}$$

Table 1. Aggregate evidence used in the computations.

	MIT-integrated ($n = 18$)		Usual care ($n = 39$)	
Quantity	Entry	Six months	Entry	Six months
Functioning, mean (SE)	6.11 (0.179)	7.72 (0.253)	6.31 (0.161)	7.26 (0.197)
Psychiatric symptoms, mean (SE)	54.17 (2.324)	29.56 (0.833)	49.41 (2.557)	34.82 (1.493)
Clinical severity, mean (SE)	3.61 (0.216)	1.94 (0.206)	3.95 (0.176)	2.56 (0.204)
Continued psychotherapy, x/n	16/18		30/39	
No adverse event, x/n	15/18		33/39	

Higher functioning is desirable; lower psychiatric-symptom and clinical-severity scores are desirable. Values are reproduced in the units printed in the evidence record. SE, standard error.

The probability $\Pr(U > 0)$ answers whether MIT-integrated care has positive comparative value under a particular set of priorities. The principal specification assigned one third to each domain. The full surface used weight increments of 0.025, producing 861 admissible combinations across the simplex.

Equation (6) is deliberately transparent. It does not convert the result into a treatment mandate, monetary value, or quality-adjusted life-year. A service can inspect the surface, locate its priorities, and see whether the evidence supports a preference. Regions dominated by one domain are visible rather than hidden inside an average.

2.6. Computational experiments and reporting

Two hundred thousand posterior draws were generated with NumPy using seed 20260814. The principal experiment used $\rho = 0.50$ and $\alpha = 0.50$. The weight experiment evaluated the complete grid described above. The stress experiment crossed five correlation assumptions with four symmetric beta-prior concentrations. Posterior means, equal-tail 95% credible intervals, and probabilities of positive advantage were reported. A probability of at least 0.80 was treated as decision support, 0.90 as strong support, and 0.95 as highly concentrated support; these labels describe posterior concentration and are not frequentist significance thresholds.

The analysis code, numeric output files, and final graphics accompany the manuscript. Re-execution regenerates all analytical figures from the printed aggregates. Contextual photographs are separate generated depictions and do not enter any calculation.

2.7. Ethics and reporting boundaries

No person was recruited, contacted, or assessed for this computational study, and no identifiable health information was processed. The published clinical report described its own institutional approval and consent procedures. The present work uses only public aggregate quantities. Claims are consequently restricted to those quantities, the stated distributional assumptions, and the tested preference weights.

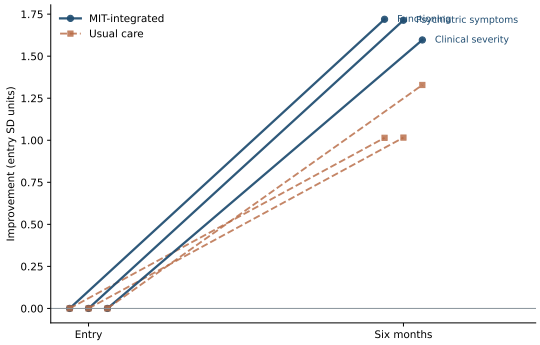

Figure 4. Directional clinical change over six months.

3. RESULTS AND DISCUSSION

3.1. Observed directional change

The MIT-integrated group moved from 54.17 to 29.56 on the psychiatric-symptom scale, while usual care moved from 49.41 to 34.82. Directionally coded improvement was therefore 24.61 points and 14.59 points, respectively, producing a 10.02-point difference-in-change before posterior sampling. Functioning increased by 1.61 printed units under MIT-integrated care and 0.95 under usual care, yielding a directional contrast of 0.66. Clinical severity decreased by 1.67 and 1.39 points, yielding a smaller contrast of 0.28.

The standardized trajectories in figure 4 place higher functioning and lower symptom severity on the same improvement direction. The largest separation occurred for psychiatric symptoms. Functioning also separated, whereas global clinical severity showed similar downward movement in both groups. This pattern argues against summarizing the clinical evidence with a single unqualified statement: the comparative signal differs materially by outcome.

The absence of random allocation remains important. Patient preference, therapist availability, medication, family involvement, and unmeasured severity characteristics may have affected group membership. Removing the entry difference reduces one visible imbalance but cannot remove hidden confounding. The appropriate interpretation is a robustness assessment of reported group movement, not proof that the treatment label

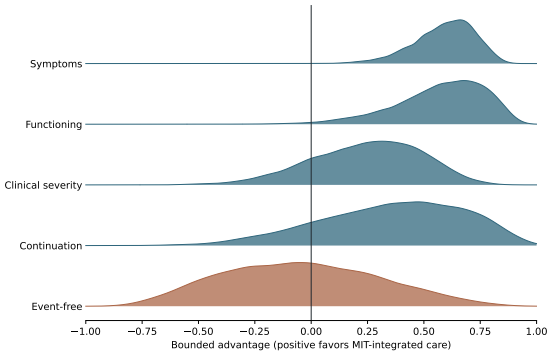

Figure 5. Posterior distributions of bounded domain advantage.

caused the entire contrast.

3.2. Posterior domain advantages

The functioning difference-in-change had a posterior mean of 0.660 printed units (95% CrI 0.092 to 1.227), with a 0.989 probability of positive advantage. Psychiatric symptoms had a posterior mean of 10.030 points (95% CrI 4.127 to 15.965), with probability 0.9996. Clinical severity had a mean of 0.280 points (95% CrI −0.276 to 0.838) and probability 0.836. Thus, all three clinical distributions leaned toward MIT-integrated care, but only psychiatric symptoms and functioning excluded zero from their equal-tail intervals under the principal correlation assumption.

Continuation was observed in 16 of 18 MIT-integrated recipients and 30 of 39 usual-care recipients. The posterior risk difference was 0.106 (95% CrI −0.107 to 0.291), with a 0.855 probability that continuation was higher under MIT-integrated care. The interval remained wide because only 57 psychotherapy recipients contributed to the contrast. The finding is better expressed as a promising continuation signal than as a proven retention advantage.

Event-free care occurred in 15 of 18 and 33 of 39 recipients, respectively. The posterior risk difference was −0.021 (95% CrI −0.241 to 0.167), with only a 0.440 probability of advantage for MIT-integrated care. The distribution centered near equality. This neutral result is clinically reassuring in the limited sense that no large adverse difference is visible, but it does not establish equivalence because the interval remains compatible with moderate advantages in either direction.

The density lanes in figure 5 clarify why the joint result is favorable without being uniform. Psychiatric symptoms and functioning lie predominantly to the positive side, clinical severity and continuation retain appreciable uncertainty, and event-free care straddles zero. The bounded scale prevents the strong symptom signal from numerically overwhelming all other considerations, yet it allows that signal to contribute according to the selected clinical weight.

The posterior estimates in table 2 separate magnitude

Table 2. Posterior estimates under the principal specification.

Domain	Mean	2.5%	97.5%	Pr(> 0)
Functioning difference-in-change	0.660	0.092	1.227	0.989
Psychiatric-symptom difference-in-change	10.030	4.127	15.965	1.000
Clinical-severity difference-in-change	0.280	−0.276	0.838	0.836
Continuation risk difference	0.106	−0.107	0.291	0.855
Event-free risk difference	−0.021	−0.241	0.167	0.440
Equal-domain joint score	0.260	−0.053	0.564	0.947

Positive values favor MIT-integrated care. Continuous estimates use printed scale units; binary estimates use absolute probability differences; the joint score is bounded.

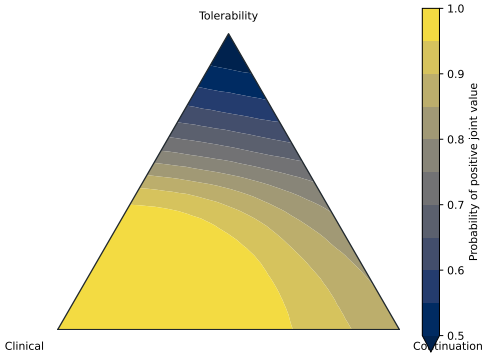

Figure 6. Probability of positive joint value across priority weights.

from certainty. A probability close to one for psychiatric symptoms accompanies a large raw contrast, while the high functioning probability accompanies a smaller raw contrast on its printed scale. The joint 95% interval crosses zero even though 94.7% of the distribution is positive, illustrating why a single interval decision rule would discard useful graded evidence.

3.3. Priority-dependent decision stability

With one third of decision weight assigned to each domain, the joint posterior mean was 0.260 and the probability of positive comparative value was 0.947. The value is just below the predeclared highly concentrated-support boundary of 0.95. The conclusion is therefore strong but not absolute: most draws favor MIT-integrated care, while a small portion combine weaker clinical effects, lower continuation, and lower event-free probability.

Across the 861-point priority grid, 75.3% of combinations produced at least 0.80 support, 53.3% produced at least 0.90, and 39.3% produced at least 0.95. Clinical-dominant weights yielded the greatest concentration because the symptom and functioning distributions were strongly positive. Continuation-dominant choices remained generally favorable but less concentrated. Tolerability-dominant choices approached indifference or favored usual care because the event-free distribution was centered slightly below zero.

The triangular surface in figure 6 makes the conditional conclusion visible. Moving toward the clinical corner increases posterior support; moving toward the tolerability corner decreases it. The gradual color transition is im-

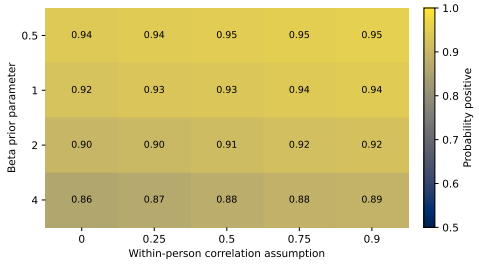

Figure 7. Joint-value probability under correlation and prior changes.

portant because it shows no universal cutoff between a "correct" and "incorrect" service choice. Instead, the evidentiary preference depends on which consequences the service is prepared to prioritize.

This result has a practical implication for shared decision-making. A young person who values rapid relief and improved daily functioning can be told that the reported evidence favors MIT-integrated care with high probability. A person primarily concerned about avoiding any mild adverse experience should be told that the available counts do not favor that care pathway. Presenting both statements is more honest than using the symptom result to imply tolerability superiority.

3.4. Stress tests

The unknown repeated-measure correlation did not reverse the equal-domain conclusion. Under the Jeffreys binary prior, the probability of positive joint value rose from 0.939 at $\rho = 0$ to 0.953 at $\rho = 0.90$. Higher correlations reduce the variance of within-group change and therefore concentrate the continuous distributions around their positive observed contrasts.

Increasing the symmetric beta-prior parameter pulled the small binary samples toward equal probabilities and reduced the contribution of the observed continuation difference. Across all correlation assumptions, the equal-domain probability ranged from 0.924 to 0.943 for $\alpha = 1$, 0.898 to 0.921 for $\alpha = 2$, and 0.859 to 0.890 for $\alpha = 4$. Every tested combination remained above 0.85, so the answer did not depend on one conventional prior.

The matrix in figure 7 shows that prior concentration has more influence than the repeated-measure correlation within the tested ranges. Even the most conservative combination did not approach an even probability. The analysis is thus robust to these two identified uncertainties, although it cannot address unmeasured confounding or outcome-reporting error.

Table 3. Range of positive joint-value probabilities in stress tests.

Symmetric beta prior	Minimum	Maximum	Interpretation
Beta(0.5, 0.5)	0.939	0.953	Strong to highly concentrated
Beta(1, 1)	0.924	0.943	Strong
Beta(2, 2)	0.898	0.921	Moderate-to-strong
Beta(4, 4)	0.859	0.890	Moderate

The ranges in table 3 summarize twenty combinations rather than isolated favorable settings. Because all remain above 0.85, the principal answer is stable within the declared model family. That stability should not be confused with transportability: a different clinic, population, therapist mix, or adverse-event ascertainment process may yield different evidence.

3.5. Relation to psychotherapy and service literature

The result is consistent with a broader literature in which psychotherapy produces meaningful average improvement but leaves uncertainty concerning individual response and continuation. Reviews of child and adolescent depression treatments have long noted that efficacy estimates depend on design, severity, and comparator.[27,28] The TORDIA trial further demonstrated the value of combined treatment strategies when adolescents do not respond to an initial antidepressant, illustrating that treatment pathways may need adaptation rather than a single fixed modality.[29] The present decision analysis complements that tradition by examining how several service consequences jointly affect preference.

Mental-state understanding may contribute through multiple routes. It can help a young person name affect, question rigid interpersonal expectations, and recognize how anticipated criticism or rejection shapes behavior. Disturbances in dialogue and self-experience have been linked to metacognitive difficulty, while treatment accounts propose that greater reflective capacity can improve the use of therapeutic experiences.[30] These mechanisms are plausible, but the available aggregates do not contain a metacognition measure. The posterior symptom advantage cannot therefore be interpreted as direct evidence that metacognitive capacity mediated improvement.

The continuation finding deserves particular caution. Adolescents leave therapy for clinical, relational, developmental, and logistical reasons. A lower observed discontinuation count could reflect stronger engagement, but it could also reflect therapist availability, patient preference, scheduling flexibility, family support, or chance. Dynamic psychotherapy research has shown that treatment response can vary by patient and design characteristics, and comparisons between randomized and nonrandomized samples warn against assuming that selection is inconsequential.[31,32] The present probability of 0.855 is appropriately suggestive rather than definitive.

Gender and social context also complicate transport. Psychotherapy trials have reported gender-related differences in some psychosocial outcomes, but those patterns are neither uniform nor necessarily applicable to youth outpatient psychiatry.[33] Population trends in mood-disorder indicators and suicide-related outcomes vary across age, period, and cohort, emphasizing that a clinic observed during a historically disruptive period may not represent later referral streams.[34] Biological, en-

vironmental, and social pathways during the pandemic add further reasons to expect contextual variation.[35]

The study's transdiagnostic emphasis is both a strength and a limitation. It matches routine early-intervention practice, where symptom clusters cross diagnostic boundaries. Yet the same mixture prevents a claim that one psychotherapy should be preferred for any specific disorder. Evidence-based psychotherapy in children and adolescents continues to face conceptual and methodological limits involving comorbidity, developmental change, outcome choice, and generalization from trials to services.[36] The priority surface helps expose value disagreement, but it does not solve these broader design problems.

The functioning measure also warrants restraint. Global functioning ratings compress psychological, social, and occupational performance into a single judgment and may be influenced by rater perspective. Research on global clinical impressions shows that staff and patient perspectives can yield different views of outcome, while work on brief psychiatric ratings emphasizes the need for training and consistency.[37,38] Future prospective work should include youth-reported participation, goal attainment, quality of life, education, and family burden alongside clinician ratings.

4. CONCLUSION

This study asked whether MIT-integrated outpatient psychotherapy retains positive comparative value when clinical improvement, treatment continuation, and event-free care are allowed to carry different weights. The answer is yes for most, but not all, admissible priority combinations. Under equal domain weights, positive joint value occurred in 94.7% of posterior draws, and three quarters of the full weight grid exceeded 80% support. The result was driven by strongly favorable psychiatric-symptom evidence and favorable functioning evidence, supplemented by a less certain continuation signal. Event-free care did not favor MIT-integrated treatment and should not be described as a comparative advantage.

The evidence therefore supports a monitored service preference when symptom relief and functioning have meaningful weight. It does not support unconditional superiority, diagnosis-specific prescribing, or a preference based chiefly on tolerability. The most defensible next study would prospectively collect patient-level repeated outcomes, reasons for discontinuation, structured adverse-event reports, youth-defined goals, medication changes, therapist identifiers, and metacognitive process measures. Such evidence would test whether the present priority-dependent conclusion is causal, transportable, and aligned with what young people value.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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