

Economic Evaluation Frameworks for Decision-Making in Integrated Behavioral Health: A Systematic Review of Cost-Effectiveness, Equity, and Multi-Criteria Approaches

Justine Exonam Amekoe¹ and Daniel Ohene-Djan²

¹University of North Carolina Charlotte—Charlotte, NC, USA.

²University of Professional Studies, Ghana.

Abstract: Background: Integrated behavioral health services are being touted as more effective at achieving better health results and enhancing system efficiency. The economic evaluation frameworks employed in these systems, however, remain methodologically inconsistent in informing the decision-making procedure. There have been recent developments such as equity-sensitive methods and multi-criteria decision analysis (MCDA), which have broadened the range of traditional methods of evaluation. **Objective:** To conduct a systematic review of economic evaluation frameworks applied to integrated behavioral health (IBH) and the inclusion of economic considerations on cost-effectiveness, equity, and multi-criteria approaches for the most recent evidence (2020-2025). **Methods:** A systematic review was conducted based on the PRISMA guidelines. An in-depth literature search was conducted in PubMed/MEDLINE, Scopus, Web of Science, EconLit, and PsycINFO to find peer-reviewed literature from January 2020 to March 2025. Eligible studies such as economic evaluations or methodological frameworks for integrated or behavioral health systems are used. The study characteristics, evaluation methods, and decision-making frameworks were extracted and synthesized in a narrative manner. **Results:** Across 35 studies included, integrated behavioral health interventions were generally found to be cost-effective, especially in the longer term. There is considerable variation in the method of costing, outcome measurement, and analytic methods, however. Traditional cost-effectiveness approaches did not always include multi-dimensional outcomes and equity implications. Distributional cost-effectiveness analysis (DCEA) and MCDA were emerging methods that could be used to overcome these limitations but were not used consistently. **Conclusion:** For integrated behavioral health, economic evaluation is transitioning to more holistic and equity-focused evaluations. To make the economic evidence more relevant to policy and decision-making, there is a need for greater methodological standardization, better outcome measures, and incorporating stakeholder perspectives.

Keywords: Decision-Making, Behavioral Health, Cost-Effectiveness, Equity.

INTRODUCTION

Mental and behavioral health conditions are a large and increasing burden worldwide and are an important cause of morbidity, mortality, and health care spending. Efficient and scalable behavioral health interventions are critical to the urgent economic and social needs of addressing mental ill health, especially major depressive disorder, during times of systemic disruption (Greenberg & Sisitsky, 2021). There is a strong association between these conditions and other social determinants, including poverty, inequality, and poor access to care, which exacerbates disparities between populations (Knifton & Inglis, 2020). More recent evidence also highlights the need for more targeted, community-led solutions that tackle structural barriers, engage real-time data systems, and build the capacity of the public health workforce to advance health equity in health initiatives (Ugwu *et al.*, 2025). While access to coordinated, effective behavioral health services has improved, it remains inequitable, especially for vulnerable and underserved communities, despite greater investment in healthcare systems.

To address these challenges, integrated behavioral health models have become an effective approach to enhanced care delivery. The models are designed to help integrate mental health, physical health, and social services into a coordinated system to improve health outcomes for patients, improve care access and continuity, and maximize resources. The results from health insurance expansion also indicate that changes in coverage can affect patterns of care and provider behavior, and that interventions targeting provider behavior are likely to be more effective within systems of services than interventions targeting patients directly. Results indicate that integrated methods can result in better clinical outcomes and, under some conditions, decrease health care expenditures (Rocks *et al.*, 2020). The complexity of these interventions, however, creates challenges for evaluation, especially in a way that captures the multi-dimensional impacts of these interventions.

Economic evaluation is an important aspect that should be included when making decisions about healthcare interventions, as it involves determining

the value of the intervention compared to the cost. Common methods for guiding resource allocation are traditional methods such as cost-effectiveness analysis (CEA) and cost-utility analysis (CUA). The core components of health technology assessment (HTA) guidelines' effectiveness, safety, and cost-effectiveness are quite similar across jurisdictions but are applied to the context of each specific case (Wang *et al.*, 2021). The methods usually involve using a standardized outcome measure such as quality-adjusted life years (QALYs) for comparison between interventions. These strategies offer a structured method for assessing efficiency but have come under increasing criticism for their narrow focus on measures of value, especially in complex integrated care environments (Helter *et al.*, 2020).

A major challenge with traditional economic appraisal is its focus on health outcomes that may not capture the patient's experience or any broader impact on the system. Traditional health-related quality of life measures do not capture the complex and changing nature of behavioral health conditions, nor the social determinants and comorbidities frequently observed in the field. Consequently, usual methods of assessing the effectiveness of integrated behavioral health interventions or outcomes of integrated behavioral health interventions result in a lack of consideration of other key outcomes like social functioning, equity, and patient preferences (Wester *et al.*, 2021; Peasgood *et al.*, 2022).

Alternate approaches have received increasing attention in recent years. Distributional cost-effectiveness analysis (DCEA) is a more advanced approach than traditional cost-effectiveness analysis, which explicitly considers equity issues, enabling decision makers to understand the efficiency vs equity trade-offs. (Ward *et al.*, 2022; Steijger *et al.*, 2022). Likewise, multi-criteria decision analysis (MCDA) allows for the integration of multiple dimensions of value, such as clinical outcomes, quality of life, equity, and preferences of stakeholders, in one decision-making tool (Islam *et al.*, 2021; Hoedemakers *et al.*, 2022). Although the use of these approaches is still heterogeneous and methodologically different (Zelei *et al.*, 2021), these approaches provide potential and exciting solutions to the shortcomings of traditional approaches. The bibliometric analysis also shows that the application of MCDA in healthcare has experienced rapid growth and has been increasingly relevant and interesting, especially in

the use of telemedicine and complex decision environments (Dai *et al.*, 2022).

Notwithstanding these advances, there is no one comprehensive framework that will direct the economic assessment of integrated behavioral health systems. Prior research has used a variety of methods and measures and included equity and stakeholder considerations. This lack of standardization makes it harder to compare results among studies and impedes the transfer of evidence into policy and practice (Dawkins *et al.*, 2024; Bowser *et al.*, 2021). The need for comprehensive evaluation frameworks extends beyond behavioral health and is increasingly recognized across complex health and social care systems. For example, a recent systematic review examining the integration of maternal health and social-service data for high-risk mothers in the United States highlighted the importance of coordinated, multi-sector approaches to improving health outcomes and informing policy decisions (Amekoe & Ohene-Djan, 2026). The review demonstrated that fragmented data systems and inconsistent evaluation practices can hinder effective care coordination, reinforcing the broader need for standardized and multidimensional evaluation frameworks in complex healthcare environments. These findings further support the need to examine how economic evaluation approaches can better capture the diverse outcomes, stakeholder perspectives, and equity considerations associated with integrated behavioral health systems.

Although previous reviews have examined the effectiveness and cost-effectiveness of integrated behavioral health interventions, no recent systematic review has comprehensively synthesized the economic evaluation frameworks used to assess these interventions, particularly regarding the integration of equity considerations and multi-criteria decision-making approaches. This review addresses that gap by evaluating how contemporary economic evaluation methods are applied in integrated behavioral health settings.

METHODOLOGY

Study Design and Reporting Framework

The Preferred Reporting Items for a Systematic Review and Meta-Analyses (PRISMA 2020) guidelines were followed to ensure transparency, reproducibility, and methodological rigor (Hennessy *et al.*, 2020). The purpose of the review was to pinpoint and integrate recent literature on economic evaluation frameworks for integrated

behavioral health systems. In the absence of a prospectively registered review protocol in PROSPERO, the methodological procedures used were established a priori and followed the standards for systematic reviews in the field of health economics and health services research (Bowser *et al.*, 2021; Le *et al.*, 2021).

Data Sources and Search Strategy.

A systematic and detailed literature search was carried out in critical electronic literature databases such as PubMed/MEDLINE, Scopus, Web of Science, EconLit and PsycINFO. These databases were chosen to reflect interdisciplinary evidence from clinical medicine, health economics, and health systems of research. To capture the latest advances in economic evaluation frameworks and integrated care models, the search was limited to studies published from January 2020 to March 2025.

The search strategy included terms from the controlled vocabulary and free-text terms related to integrated care, behavioral health and economic evaluation. Boolean operators were used to enhance search sensitivity and specificity. The representative search strategy carried out in PubMed combined keywords like “integrated care,” “behavioral health integration,” “economic evaluation,” “cost-effectiveness,” and “multi-criteria decision analysis.” The search strategy was customized for each database to meet the indexing needs of the database. The reference lists of included studies, following recommended practices for conducting systematic reviews (Hennessy *et al.*, 2020), were also manually hand searched for additional potentially relevant studies.

Eligibility Criteria

Studies were included or excluded in accordance with the predefined inclusion and exclusion criteria to guarantee uniformity and relevance. The studies included in the analysis had to be peer-reviewed articles written in English in the years 2020–2025 and containing an explicit economic evaluation component. This encompasses cost-effectiveness analysis, cost-utility analysis, cost-benefit analysis, or multi-criteria decision analysis frameworks related to integrated care, behavioral health interventions, or other health system decision-making environments. Studies also needed to provide quantitative or mixed method results that could be relevant to an economic evaluation (such as incremental cost-effectiveness ratios, QALYs, ROI, or utility measures).

Studies were not included if they lacked an economic evaluation component, if they were purely clinical or epidemiological studies without economic endpoints or if they were editorials, such as commentaries, letters, or conference abstracts. The studies published before 2020 were excluded to keep the focus on the recent methodological advances. The criteria are like those used in systematic reviews of economic evaluations of mental health and public health interventions in other recent systematic reviews (Le *et al.*, 2021; Feldman *et al.*, 2021).

Study Selection Process

A two-stage screening process was used in the selection of studies. All identified records were first reviewed by their titles and abstracts to identify those that were obviously not relevant. In turn, all the full-text articles of potentially eligible studies were evaluated for the pre-set inclusion criteria. Selection bias was minimized, and discrepancies in study selection were resolved by discussion to ensure consistency.

There were 170 records found in the databases and other resources. Removing the duplicated records, a total of 142 records were left for title and abstract screening, of which 96 were discarded. A total of 11 articles were excluded because they did not include an economic evaluation component, were not relevant to integrated/behavioral health contexts, or lacked methodological reporting and were not considered eligible for the full text assessment. In the end, 35 studies were included in the final synthesis. The selection of studies is reported in Figure 1 following the PRISMA criteria (Hennessy *et al.*, 2020).

Data Extraction

All data were extracted on the same framework to ensure uniformity across studies. Information extracted were study characteristics (author, year, and setting), intervention characteristics (type), population, and economic evaluation method. The other data comprised from an analytical perspective, the time horizon, and the main types of outcomes: cost-effectiveness ratios, utility scores, and cost outcomes.

Additional data were gathered regarding the inclusion of equity issues and stakeholder preferences or results from a wider system. The methodological assumptions and limitations of the studies were also recorded to facilitate critical appraisal. This method is consistent with existing methods for systematic reviews of economic

evaluations (Conombo *et al.*, 2022; Bowser *et al.*, 2021).

Quality Assessment

The Consolidated Health Economic Evaluation Reporting Standards (CHEERS) checklist was used to determine the methodological quality of the included studies in terms of transparency and completeness of reporting in economic evaluations. Additional criteria were based on previous systematic reviews to determine the appropriateness of the economic models used, reporting of costs and outcomes, and sensitivity analyses to address uncertainty (Rocks *et al.*, 2020; Bowser *et al.*, 2021).

Again, the assessment was not used to exclude studies based on quality scores from the analysis, but instead it was used to inform interpretation of findings and common methodological limitations in the literature.

Data Synthesis

A narrative synthesis approach was used due to the diversity of study designs, types of interventions, and outcome measures. The synthesis was organized by themes to highlight major areas or challenges related to the objectives of the review, such as the cost-effectiveness of integrated behavioral health interventions, challenges in measuring outcomes, and using multi-criteria decision-making frameworks to incorporate perspectives of equity into economic evaluation.

Existing systematic reviews and meta-analyses were used to inform the findings where possible, to

supplement the evidence and help to understand findings (Rocks *et al.*, 2020; Le *et al.*, 2021). This way, a complete and structured literature interpretation was carried out without losing the methodological coherence.

The Risks of Bias and Limitations.

Throughout the review process, potential sources of bias were taken into consideration. Examples of these were the exclusion of grey literature and language bias for restricting to English language research. Additionally, methodological differences between studies and the use of various costing methodologies, outcome measures, and time horizons were identified as a limitation that would make the findings from the studies less comparable and generalizable. Furthermore, previous methodological studies have shown that the bias of the synthesized evidence, such as the asymmetry of the study effects, can greatly affect the meaning of the aggregated evidence, thereby requiring careful examination of the studies included (Ajayi & Cudjoe-Mensah, 2025). Incorporating structured approaches to fundamental uncertainty in economic evaluation can improve decision robustness, particularly in complex systems where long-term outcomes and risks are difficult to quantify (Krutilla *et al.*, 2021).

In addition, inconsistencies in reporting economic outcomes and implementation costs were identified as a recurring issue in the literature, complicating efforts to synthesize results across studies (Bowser *et al.*, 2021; Steijger *et al.*, 2022).

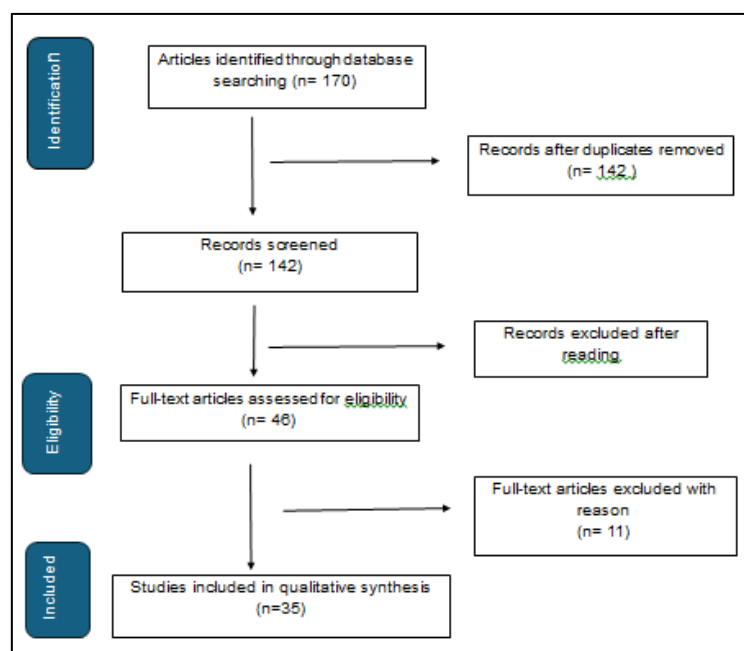


Figure 1: PRISMA 2020 flow diagram of study selection process

RESULTS

Study Selection and Characteristics

The included studies comprised a mix of full economic evaluations, methodological analyses, and applied decision-making frameworks across integrated care, behavioral health, and broader health system contexts. The majority of studies

were conducted in high-income countries, with a smaller number addressing multi-country or global contexts. Study designs included cost-effectiveness analyses, cost-utility analyses, cost-benefit analyses, and applications of multi-criteria decision analysis (MCDA).

Table 1: Characteristics of Included Studies

| N O | Author | Year | Country/Setting | Study Type | Intervention/Focus | Economic Method | Key Findings |
|-----|---------------------------|------|-----------------|-----------------------------------|----------------------------------|------------------------|-------------------------------------|
| 1 | Rocks <i>et al.</i> | 2020 | Multi-country | Systematic review & meta-analysis | Integrated care | CEA | Improved outcomes and reduced costs |
| 2 | Le <i>et al.</i> | 2021 | Multi-country | Systematic review | Mental health prevention | CEA | Majority cost-effective |
| 3 | Feldman <i>et al.</i> | 2021 | Global | Systematic review | Public mental health | Economic evaluation | ~63% cost-effective |
| 4 | Bowser <i>et al.</i> | 2021 | USA | Systematic review | Behavioral health implementation | Cost analysis | High variability in costs |
| 5 | Bray <i>et al.</i> | 2023 | USA | Methodological | Utility estimation | CUA methods | Bias in joint utility estimation |
| 6 | Islam <i>et al.</i> | 2021 | Norway | Applied study | Integrated elderly care | MCDA | Improved multi-dimensional outcomes |
| 7 | Hoedemakers <i>et al.</i> | 2022 | Europe | Applied study | Person-centered care | MCDA | Captured stakeholder preferences |
| 8 | Ward <i>et al.</i> | 2022 | Multi-country | Systematic review | Equity evaluation in | DCEA | Identified equity methods |
| 9 | Steijger <i>et al.</i> | 2022 | Multi-country | Review | Distributional CEA | DCEA | Implementation challenges |
| 10 | Dawkins <i>et al.</i> | 2024 | Global | Scoping review | Equity guidelines in | Framework review | Limited equity guidance |
| 11 | Helter <i>et al.</i> | 2020 | Europe | Review | Capability approach | Alternative evaluation | Broader well-being focus |
| 12 | Peasgood <i>et al.</i> | 2022 | Multi-country | Instrument development | EQ-HWB | Outcome measurement | Expanded well-being capture |
| 13 | Wester <i>et al.</i> | 2021 | Europe | Empirical | HRQoL bias | Utility measurement | Risk of overestimation |
| 14 | Zelei <i>et al.</i> | 2021 | Global | Systematic review | MCDA frameworks | MCDA | Lack of standardization |
| 15 | Gaievskiy <i>et al.</i> | 2025 | Global | Review | MCDA in emergencies | MCDA | Stakeholder complexity |
| 16 | Oortwijn <i>et al.</i> | 2022 | Global | Conceptual | Deliberative processes | Policy framework | Improved decision |

| | | | | | | | |
|----|-------------------------------|------|---------------|-----------------------|-------------------------------|---------------------|-----------------------------------|
| | | | | | | | legitimacy |
| 17 | Conombo <i>et al.</i> | 2022 | Multi-country | Systematic review | Clinical practices | Economic evaluation | Variation in methods |
| 18 | Wang <i>et al.</i> | 2021 | Global | Review | HTA guidelines | HTA | Methodological variation |
| 19 | Seixas <i>et al.</i> | 2021 | Global | Review | Priority setting | PBMA | Inconsistent implementation |
| 20 | Sampson <i>et al.</i> | 2022 | Global | Review | Cost-effectiveness thresholds | CEA | Policy uncertainty issues |
| 21 | Ludwig <i>et al.</i> | 2021 | Europe | Empirical | Patient preferences | Utility valuation | Differences vs general population |
| 22 | Mouter <i>et al.</i> | 2022 | Netherlands | Empirical | Public preferences | DCE | Preference heterogeneity |
| 23 | Dai <i>et al.</i> | 2022 | Global | Bibliometric | MCDA research | MCDA | Rapid growth in field |
| 24 | Gavan <i>et al.</i> | 2025 | Global | Applied study | Digital health monitoring | CEA | Promising cost-effectiveness |
| 25 | Bankolé <i>et al.</i> | 2025 | Multi-country | Systematic review | Scaling interventions | Economic evaluation | Limited evidence on scale-up |
| 26 | Alfaqeeh <i>et al.</i> | 2025 | Indonesia | Conceptual | Priority setting | Framework | Comprehensive model proposed |
| 27 | Cowan & Hao | 2021 | USA | Empirical | Medicaid expansion | Economic evaluation | Improved mental health outcomes |
| 28 | Richards & Tello-Trillo | 2021 | USA | Empirical | Insurance mandates | Economic analysis | Increased care intensity |
| 29 | Krutilla <i>et al.</i> | 2021 | USA | Methodological | Uncertainty in analysis | Cost-benefit | Improved decision modeling |
| 30 | Dubas-Jakóbczyk <i>et al.</i> | 2020 | Europe | Policy analysis | Hospital reforms | Economic analysis | System-level variation |
| 31 | Forno <i>et al.</i> | 2020 | USA | RCT | Asthma intervention | Cost-effectiveness | Mixed economic outcomes |
| 32 | Knifton & Inglis | 2020 | UK | Policy review | Poverty & mental health | Conceptual | Strong equity link |
| 33 | Greenberg & Sisitsky | 2021 | USA | Economic burden study | Depression | Cost analysis | High societal costs |
| 34 | Fens <i>et al.</i> | 2021 | Europe | Review | MCDA in innovation | MCDA | Growing application |
| 35 | Zelei <i>et al.</i> | 2021 | Global | Review | Rare diseases evaluation | MCDA | Diverse criteria use |

Cost-Effectiveness of Integrated Behavioral Health Interventions

What's common to all of the studies in the sample is that while integrated behavioral health interventions are often linked to positive economic results, the extent of their economic impact varies. Rocks *et al.* (2020) conducted a systematic review and meta-analysis of integrated care interventions, which showed that there was statistically significant improvement in health outcomes and decreased costs of care. The pooled results showed that the integrated care interventions were more effective and cheaper, suggesting that integrated care can lead to improved value within health systems.

This is corroborated by the overall evidence of mental health prevention and promotion interventions. Le *et al.* (2021) found the most interventions assessed were cost-effective or cost-saving, especially for those focused on high-risk groups. Feldman *et al.* (2021) also identified that around 63% of public mental health interventions were cost-effective, but with some variation in study quality and methods noted.

Yet there was a great degree of variation between studies. There was variability in outcomes due to differences in intervention design, follow-up length, and costing methods. Evaluating complex health system interventions had a consistent significant association with longer time horizons, with better economic outcomes for longer time horizons, indicating the importance of accounting for long-term impacts in evaluations of complex health system interventions (Rocks *et al.*, 2020).

The Methodological Challenges Faced In Outcome Measurement

One of the dominant themes found in the literature is the difficulty encountered in measuring outcomes, especially health-related quality of life (HRQoL) and utility values in cost-utility analysis. In the field of behavioral health, which has outcomes that are multidimensional and may vary over time, the traditional use of standardized tool as the EQ-5D has been called into question.

A systematic bias in HRQoL measurements has been shown by Wester *et al.* (2021) as patients are more apt to report HRQoL during periods of fewer symptoms. This can result in an exaggerated value of the utility and an underestimated value of the benefit of the interventions. In the same way, Peasgood *et al.* (2022) identified the drawbacks of the current instruments in being able to measure a

more holistic view of wellbeing, which resulted in the creation of a more comprehensive instrument such as the EQ-HWB.

Further difficulties are encountered in the estimation of utility values for persons with comorbid conditions. As further complicating factors for economic evaluations, Bray *et al.* (2023) reported that commonly used estimation approaches can yield biased estimates, depending on data availability, in behavioral health populations.

Equity is integrated into economic evaluations. Equity included within economic evaluations. Only a few of the studies included address equity in the economic evaluation. Traditional cost-effectiveness analysis emphasizes efficiency, but there is growing realization that distributional effects of interventions must also be considered.

Ward *et al.* (2022) outlined several methodological approaches that could be used to incorporate equity, namely equity weighting, extended cost-effectiveness analysis, and distributional cost-effectiveness analysis (DCEA). Of these, DCEA has been singled out because it explicitly models trade-offs between efficiency and equity.

These improvements have yet to be translated into reality. Steijger *et al.* (2022) found there were major data availability issues and methodological complexities. In addition, the authors of Dawkins *et al.* (2024) identified a gap between the development of economic evaluation guidelines and their implementation in practice, as these existing guidelines offer limited guidance on equity.

Multi-Criteria Decision Analysis and Emerging Frameworks

Multi-criteria decision analysis (MCDA) is a popular alternative to economic evaluation approaches. MCDA permits using multiple dimensions of value (such as clinical outcomes, quality of life, costs, and stakeholder preferences) at the same time, unlike traditional methods.

Empirical research shows that MCDA can be used to aid decision-making in integrated care environments. There is also recent evidence that multi-criteria decision analysis can be effective in capturing stakeholder preferences, but implementing it in the context of shared decision-making is hampered by complexity and method issues (Cahill *et al.*, 2023). Islam *et al.* (2021) adopted the MCDA approach to assess an

integrated care pathway and identified that the intervention was favored by a number of stakeholder groups. Likewise, Hoedemakers *et al.* (2022) demonstrated that the preferences of patients, caregivers, and policymakers are also captured, leading to a more nuanced understanding of the value of interventions.

But the use of MCDA is not consistent. Zelei *et al.* (2021) noted that there was a significant difference between the criteria and scoring systems employed in different studies, which means there was no standardization. However, Gaievskiy *et al.* (2025) pointed out issues with engaging stakeholders and considering the weighting of criteria that could constrain the practical use of MCDA in day-to-day decision making.

Summary of Findings

Overall, findings suggest that integrated BH interventions are generally cost-effective, but the approaches to their cost-effectiveness evaluations are diverse. Traditional economic evaluation methods offer a good base but are not ideal for measuring equity and multidimensionality outcomes. DCEA and MCDA are emerging frameworks but are not widely adopted or standardized.

DISCUSSION

This systematic review provides synthesized evidence regarding economic evaluation frameworks for integrated behavioral health. The purpose of this systematic review is to summarize recent evidence on the economic evaluation frameworks used in integrated behavioral health and to identify methodological advances and continued challenges. The results show that, though overall, integrated behavioral health interventions have positive economic results. There is some variation in the tools used to assess them, and they are not yet fully equipped to measure their value.

One major conclusion of this review is the widespread evidence of integrated BH interventions with cost-effectiveness. In various studies, in some cases, healthcare expenses were found to have decreased, and in all studies, integrated care models were linked to better health outcomes. The results are consistent with the previous systematic reviews that have shown improvements in efficiency and outcomes of care due to integrated care (Rocks *et al.*, 2020; Le *et al.*, 2021). The size of the effects, however, can differ significantly across various intervention

designs, population characteristics, and time horizons of evaluation. Specifically, research with longer follow-up periods tends to be more positive about economic outcomes, highlighting the need to also measure longer-term system-level outcomes in economic assessments.

Although the results of this review have been positive, there are significant methodological weaknesses in existing economic evaluation practices. Traditional cost-effectiveness and cost-utility frameworks are still the primary frameworks in use but do not adequately address the complexity of behavioral health interventions. Such approaches are dependent on the use of standard outcome measures such as QALYs, but the lack of capturing patient experiences and non-health aspects of well-being may limit their utility (Helter *et al.*, 2020). There is evidence that widely used measures of health-related quality of life are biased or insensitive in the behavioral health context and thus may result in an incorrect estimation of the value of the intervention.

Incorporating equity into economic evaluation is still a big area of concern. The need to overcome health inequalities is well-established, but most studies remain efficiency oriented. Distributional cost-effectiveness analysis (DCEA) is an emerging method for explicitly considering efficiency-fairness trade-offs and modeling equity. However, they have not yet been widely adopted because of data limitations, methodological challenges, and a lack of familiarity among decision-makers (Steijger *et al.*, 2022; Dawkins *et al.*, 2024). This inequity is especially concerning in the behavioral health field, where inequities in access and outcomes are strongly correlated with socioeconomic factors (Knifton & Inglis, 2020).

A recent alternative framework that tackles some of the limitations of traditional economic evaluation is multi-criteria decision analysis (MCDA). MCDA adds the dimensions of clinical outcomes, quality of life, equity, and preferences of stakeholders to decision-making. Furthermore, safety aspects and real-world evidence have been identified as key factors to enhance trust in and access to new health interventions (Fens *et al.*, 2021). The research covered in this review has shown that MCDA can improve the transparency and incorporate multifaceted trade-offs between competing criteria (Islam *et al.*, 2021; Hoedemakers *et al.*, 2022). However, it is not broadly applicable or easily comparable due to the imprecision in criteria selection, weighting of

criteria, and reporting of results (Zelei *et al.*, 2021; Gaievskiy *et al.*, 2025).

Another takeaway from this review is the overall challenge of broken-down economic evaluation frameworks in integrated behavioral health. In the wider literature on healthcare priority-setting, some of the same problems are recognized, as shared decision frameworks are applied in an inconsistent and episodic fashion, resulting in limited long-term impact and consistency (Seixas *et al.*, 2021). Current methods lack integration between the traditional cost-effectiveness analysis frameworks, equity-sensitive methods, and multi-criteria frameworks. This fragmentation makes it difficult for economic assessments to help policymakers make informed decisions and adds to the inconsistencies in resource allocation.

The Findings and Conclusions from this Study have Implications for Policy and Practice

The results of this review have significant policy implications for healthcare and healthcare decisions. There is a need to increase the standardization of economic evaluation methodologies for increased comparability between studies and increased reliability of the evidence used in decision-making. Second, policymakers should look at using more inclusive evaluation frameworks that take equity and stakeholder preferences into account as well as efficiency. There is also empirical evidence to show that policy receptivity is closely tied to the design and communication of interventions, approaches that are appreciated and will lead to uptake and policy effectiveness (Mouter *et al.*, 2022).

Moreover, the predictive element of economic evaluation in the context of deliberative decision-making can enhance the transparency and legitimacy of decisions on resource allocation. The use of cost-effectiveness thresholds in decision-making is, however, not without controversy, especially when there are not a full empirical estimation of opportunity cost or the cost-effectiveness thresholds are not certain (Sampson *et al.*, 2022). Evidence-informed deliberative Processes have been recommended to integrate quantitative evidence and stakeholder participation into more integrated and context-oriented decision-making (Oortwijn *et al.*, 2022).

The Review Identified Both Strengths And Limitations

This review has a number of strengths. It offers a systematic overview of the evidence available in the past few years regarding economic evaluation frameworks in the context of integrated behavioral health, emphasizing methodological advances and implications for decision-making. The use of PRISMA guidelines and a structured search strategy enhances the transparency and reproducibility of the review.

Some restrictions need to be noted, however. First, the review was limited to English-written and peer-reviewed journals, which can result in language and publication bias. Second, the exclusion of grey literature might make the evidence base less comprehensive. Thirdly, the lack of uniformity in study design, intervention, and outcome measurement reduced the feasibility of quantitative synthesis and could impact generalizability. Lastly, standardization of the reporting of the studies was an issue that made comparative analysis difficult.

Future Research Directions

New studies are needed on the development of integrated and standardized assessment frameworks that incorporate multiple value dimensions and efficiency and equity principles. Better outcome measures that reflect a more comprehensive understanding of well-being and patient experience, especially in behavioral health settings, are needed. Furthermore, operationalization of equity-sensitive approaches, like DCEA, should be given priority.

There is other research that should be conducted to improve the use of MCDA in practice, such as the development of uniform criteria and weighting methods. Building data infrastructure and using real-world evidence will be vital to enhancing the quality and utility of economic evaluations in integrated behavioral health.

CONCLUSION

This systematic review aims to bring together recent evidence on EE frameworks for IBH and outline their strengths and limitations. In general, IBI interventions have been shown to yield positive outcomes and economic returns, especially in the longer term.

But there are some important methodological issues that have yet to be addressed. Traditional analyses like cost-effectiveness and cost-utility still prevail but do not adequately account for the

complexity of behavioral health interventions. In particular, the use of traditional health-related quality of life measures may not capture all aspects of a patient's experience or aspects of well-being. Issues also remain in estimating utility values and considering patient preferences in evaluations.

A key gap is the lack of integration between equity and economic evaluation. Equity-sensitive approaches have been developed, but their implementation is limited due to data and methodological complexity. Likewise, new approaches like multi-criteria decision analysis provide more complete evaluations of value but are not standardized and easy to apply.

Increasing methodologic standardization, better outcome measures, and more equitable and stakeholder feedback are needed to advance the field. Improving these areas is crucial to make economic evidence more relevant and useful to policy and decision-making in integrated behavioral health systems.

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