

# Rehabilitation Treatment Specification System in Occupational Therapy: A Systematic Review



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## Research Question

What are the benefits, barriers, and facilitators of using the Rehabilitation Treatment Specification System (RTSS) in OT research, education, and clinical care?

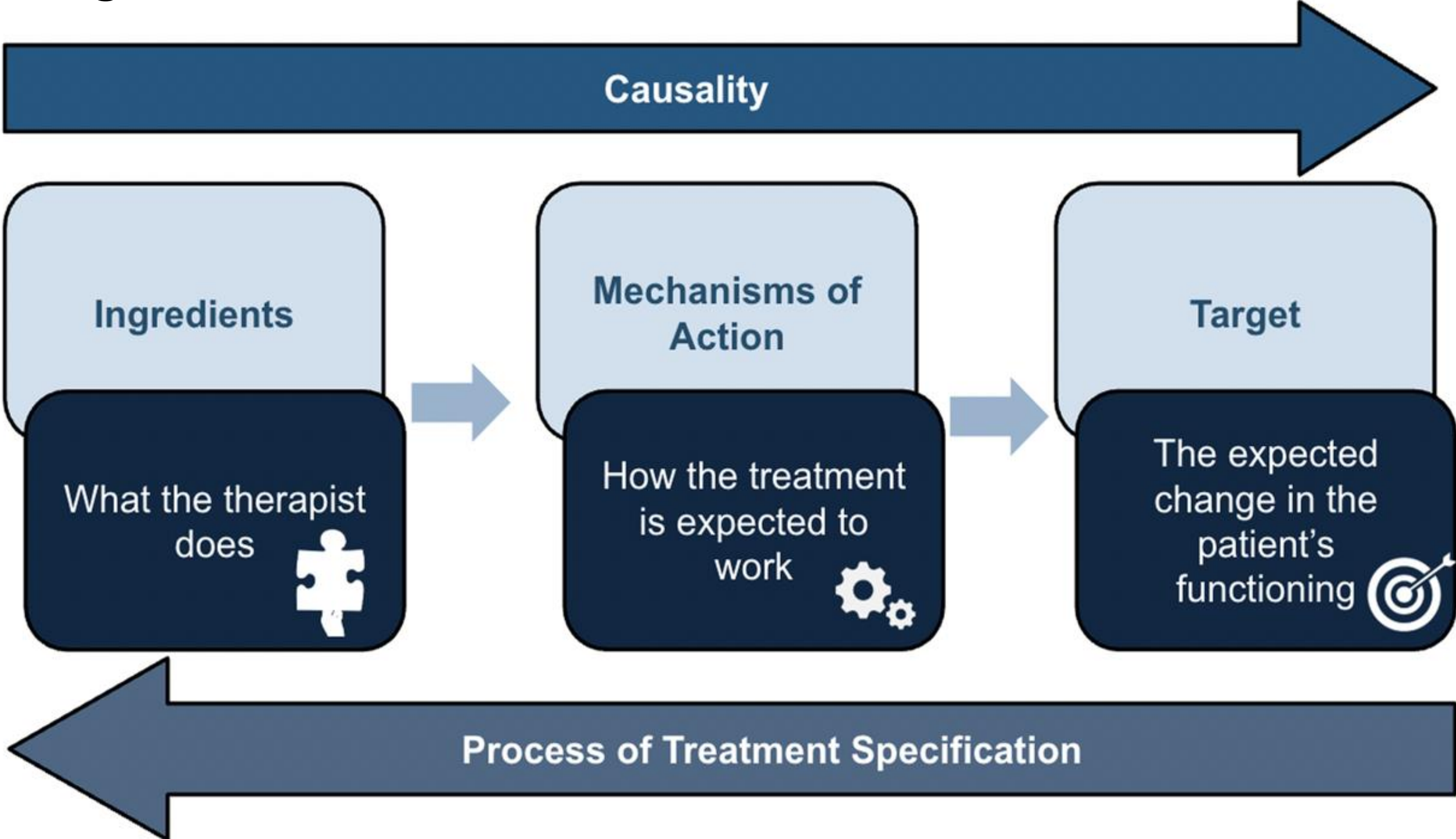
## Introduction

In rehabilitation, the "black box" phenomenon highlights vague treatment descriptions (Bonnechère, 2024). To ensure intentional, client-centered planning, the Rehabilitation Treatment Specification System (RTSS) deconstructs how and why treatments work (Lyons et al., 2024). It maps ingredients (clinician behaviors) and mechanisms of action (efficacy) to targets (functional changes), which comprise organ functions, skills/habits, and representations (Dornonville de la Cour et al., 2023). Using situational analysis and systematic methodology, this review evaluated literature on RTSS benefits, barriers, and facilitators across occupational therapy research, education, and clinical care, offering final professional recommendations.

## Method

**Review process:** Followed PRISMA guidelines. Four independent reviewers screened, selected, assessed quality, and extracted data.  
**Date of search:** May 15–21, 2026, with an additional search on May 21, 2026.  
**Inclusion criteria:** Peer-reviewed, full-text English studies (2021–2026) on RTSS in occupational therapy; quantitative, qualitative, and mixed methods.  
**Exclusion criteria:** Systematic/scoping reviews, dissertations, conference proceedings, non-English studies, and studies unrelated to RTSS in occupational therapy.  
**Databases:** PubMed, CINAHL, and MEDLINE via Hawai'i Pacific University Library.  
**Search terms:** RTSS, occupational therapy, benefits, barriers, facilitators, research, education, and clinical care.  
**Search results:** 21 articles identified; 15 remained after duplicate removal.

Figure 1. RTSS Triad



Note. Adapted from *Applying the Rehabilitation Treatment Specification System in Rehabilitation: A Scoping Review*, by L. W. Katz et al., 2025, Archives of Physical Medicine and Rehabilitation.

## Results

Twenty-two articles were initially identified. After duplicate removal, 15 studies were screened, and four met the inclusion criteria. The articles were assessed for risk of bias, level of evidence, and quality. Findings were organized into three themes: Benefits, Barriers, and Facilitators of RTSS in occupational therapy research, education, and clinical care.

The studies had several limitations outlined below:

- Small sample sizes and qualitative designs limited the generalizability of findings (Recigno, 2024; Van Stan et al., 2023).
- Reliance on self-reported experiences may have introduced response bias (Recigno, 2024; Van Stan et al., 2023).
- Limited control groups made it difficult to determine whether RTSS alone influenced outcomes.
- Only four studies met the inclusion criteria, highlighting the need for additional research on RTSS in occupational therapy.

## Discussion

- RTSS improves intervention planning by increasing the clarity, consistency, and intentionality of occupational therapy interventions.
- RTSS identifies treatment targets, ingredients, and mechanisms, supporting evidence-based, client-centered practice and improving intervention reproducibility.
- RTSS helps distinguish active treatment components, increasing confidence that outcomes are due to the intervention rather than nonspecific therapist effects.
- Current limitations include difficulty identifying mechanisms of action as well as accounting for nonspecific factors (e.g., therapeutic relationship, participant expectations).
- Education is essential for successful RTSS implementation as clinicians and students initially find the framework complex but valuable for clinical reasoning.
- Expanding RTSS education and research through continuing education, case-based learning, and clinical integration may improve treatment design, standardize practice, and strengthen rehabilitation outcomes.

## Conclusion

This systematic review demonstrates the effectiveness of the RTSS framework in occupational therapy research, education, and clinical care. By emphasizing ingredients, mechanisms of action, and targets, the RTSS improves clarity and clinical reasoning. However, clinicians still struggle to identify mechanisms of action and nonspecific client factors that impact outcomes. To strengthen its use, further research must implement RTSS educational materials across various rehabilitation settings. Educating current and future practitioners about RTSS and advocating for its use will foster meaningful, client-centered interventions.

Scan for References

