Unraveling the Treatment Preferences of Patients and Healthcare Providers in Treatment-Resistant Depression: A Targeted Literature Review

Joshua M. Hamilton,[1] Yuxian Du,[2] Hui Lu,[3] Kruti Joshi,[2] Jennifer A. Whitty,[3] Rosanne Janssens,[3] Chinwe Adebiyi[2]

[1]Department of Advanced Practice and Community-Based Care, College of Nursing, Washington State University, Spokane, WA, USA; [2]Janssen Scientific Affairs, LLC, a Johnson & Johnson company, Titusville, NJ, USA; [3]Patient-Centered Research, Evidera, London, UK

Introduction

- Pharmacologic and somatic therapies used for treatment-resistant depression (TRD) differ in modality and associated monitoring requirements, potential benefits, and tolerability
- Some treatments are used off-label, without the rigorous reassurance concerning product safety and efficacy that is provided by regulatory approval
- As a result, individuals with TRD and their healthcare providers (HCPs) have to make difficult trade-offs when selecting a treatment

Objectives

- The targeted literature review (TLR) aimed to identify the treatment-related concepts that matter most to patients and their HCPs when they select a treatment for TRD. The specific objectives were to:
  - Describe and summarize treatment-related concepts that have been included in previously published quantitative preference studies and themes arising in qualitative literature exploring treatment preferences
  - Provide an overview of relevant concepts that might affect preference for TRD treatments

TABLE 1: Inclusion and exclusion criteria

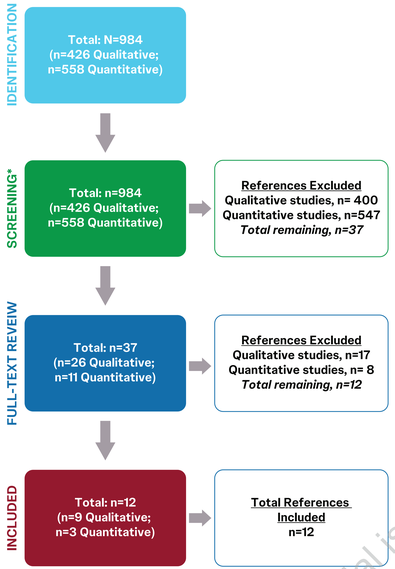
Category	Inclusion criteria	Exclusion criteria
Population	Adult patients diagnosed with MDD or TRD or physicians treating MDD or TRD	• Child/adolescent studies • General population studies • Patients not diagnosed with depression • Physicians not treating depression • Nonhuman studies
Treatment	Disease burden, QoL, treatment satisfaction, treatment preference, treatment burden	Not applicable
Study design	Qualitative studies • Interviews • Focus groups • Nominal group technique • Quantitative studies • Quantitative stated preference studies (e.g., DCE, BWS, SW, MCDA, thresholding, BRA, conjoint analysis) • Observational preference studies (e.g., revealed preferences)	Publications of studies with the following designs: • Animal studies • In vitro/ex vivo studies • Gene expression/protein expression studies • Case studies/case series • Publications that are not of empirical studies or studies without primary data collection (e.g., reviews, editorials) • Clinical trials
Language	English-language articles	Not applicable

BRA, benefit-risk analysis; BWS, best-worst scaling; DCE, discrete choice experiment; MCDA, multicriteria decision analysis; MDD, major depressive disorder; QoL, quality of life; SW, swing weighting; TRD, treatment-resistant depression.

Methods

- A TLR[1] was undertaken to identify qualitative and quantitative studies describing patient or HCP treatment preferences in TRD published since 2013, via the Ovid database (Embase, PubMed)
- Double-screening of titles/abstracts and full-text screening were conducted in May/June 2024. Data extraction for the studies that met all inclusion and no exclusion criteria (**Table 1**) was completed in June 2024
- Relevant clinical study reports and published clinical studies on the efficacy and safety of investigational and/or marketed treatments were included to identify relevant clinical trial endpoints in TRD

FIGURE 1: PRISMA diagram of literature search



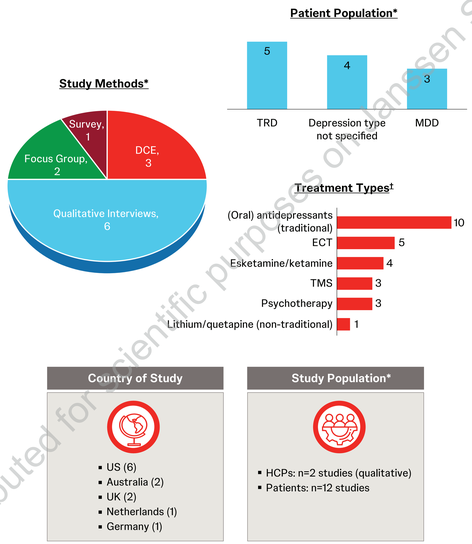
PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.
*Double screening of titles and abstracts.

Results

Characteristics of included preference studies

- Twelve studies (n = 9 qualitative[2-10]; n = 3 quantitative[11-13]) were included in the review (**Figure 1**)
- The majority of studies related to preferences for pharmaceuticals (n = 10) and half were undertaken in the US (n = 6). Qualitative studies most commonly used interview methods (n = 6), whereas all quantitative studies used discrete choice methods (n = 3) (**Figure 2**)

FIGURE 2: Characteristics of included qualitative and quantitative preference research

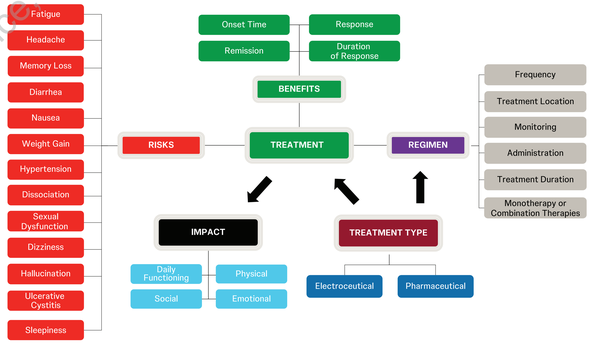


DCE, discrete choice experiment; ECT, electroconvulsive therapy; HCP, healthcare provider; MDD, major depressive disorder; TMS, transcranial magnetic stimulation; TRD, treatment-resistant depression.
The numbers in the chart refer to the number of studies included.
*Some studies cover multiple categories.
‡The total number of studies is >12 because 4 included multiple treatment types.

Identified concepts that might affect preference for TRD treatments

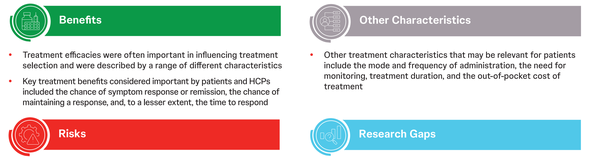
- Fifty-two treatment-related concepts were identified as potentially relevant for patients or HCPs when selecting a treatment, including concepts associated with potential benefits, risks, and other treatment characteristics, such as those related to administration. Common concepts are included in **Figure 3**

FIGURE 3: Treatment-related concepts commonly identified in prior preference research



DCE, discrete choice experiment; ECT, electroconvulsive therapy; HCP, healthcare provider; MDD, major depressive disorder; TRD, treatment-resistant depression. The numbers in the chart refer to the number of studies included.
*Some studies cover multiple categories.

FIGURE 4: Evidence review summary and preference research gaps identified



HCP, healthcare provider; TRD, treatment-resistant depression.

Limitations

This study is based on a targeted literature review conducted in English. While the approach follows systematic review principles, it may not capture all relevant studies, especially those in other languages, potentially introducing selection bias

Conclusions

- Individuals with TRD and their HCPs place significant value on symptom improvement/response, remission, long-lasting efficacy, and minimization of side effects.
- Treatment modality, frequency, and setting are also relevant considerations that may influence patient and HCP treatment preferences
- Understanding the treatment preferences of patients with TRD and their HCPs can facilitate shared decision-making and enable personalized treatment plans
- The review will inform the selection of candidate attributes that are suitable for inclusion in a quantitative preference elicitation instrument

Acknowledgements
Hui Lu, Rosanne Janssens, and Jennifer A. Whitty drafted the poster. All authors (Josh Hamilton, Yuxian Du, Hui Lu, Kruti Joshi, Rosanne Janssens, Jennifer A. Whitty, and Chinwe Adebiyi) provided input into the poster and critically reviewed and approved the final version.

Novel Pathways in Depression

Scan the QR code

This study was funded by Janssen Scientific Affairs, LLC, a Johnson & Johnson company and conducted by Evidera.

Presented at NEI Congress; November 7-10, 2024; Colorado Springs, Colorado

References
1. Hoda R. *Literature reviews*. Springer International Publishing; 2024:113-37. **2.** Anderson C, Roy T. *Res Social Adm Pharm*. 2013;9(6):884-902. **3.** Baune BT et al. *Neuropsychiatr Dis Treat*. 2021;17:2995-3006. **4.** Cabrera LY et al. *Health Risk Soc*. 2021;23(5-6):217-35. **5.** dosReis S et al. *Patient*. 2023;16(1):57-66. **6.** McKeown L et al. *J Psychopharmacol*. 2022;36(5):557-65. **7.** Schuurmans RGM et al. *J Psychiatr Ment Health Nurs*. 2023;30(5):1019-26. **8.** Shillington AC et al. *J Affect Disord*. 2020;275:299-306. **9.** Srimongkon P et al. *Patient Prefer Adherence*. 2018;12:1863-73. **10.** Starr HL et al. *Psychiatry Res*. 2020;293:113376. **11.** Fairchild AO et al. *Neurol Psychiatry Brain Res*. 2020;37:67-78. **12.** Fifer S et al. *Patient Prefer Adherence*. 2021;15:1621-37. **13.** Zimmermann TM et al. *J Affect Disord*. 2013;148(2-3):210-9.