A Targeted Literature Review of Patient Perspectives of Placebo Use in Clinical Trials: How can the Patient Voice Inform with Trial Design, Recruitment, and Retention?

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Introduction

- The double-blind, placebo-controlled randomized clinical trial is considered the "gold standard" design to determine drug efficacy, especially when no alternate treatment is available^{2,7}
- However, patients may view the chance of being randomized to placebo negatively, potentially contributing to slow recruitment or eventual attrition¹
- We conducted a targeted literature search to better understand the patient perspective on the use of placebos in clinical trials

Objective

 Develop patient-centered suggestions for conducting and retaining participants in placebo-controlled trials

Methods

- Embase, Medline, and Google Scholar were used to identify qualitative studies and literature reviews describing patient perspectives, views, and attitudes of the use of placebos in placebocontrolled trials
- Our search included the following parameters:
- <u>Keywords</u>: placebo, clinical trial, attitudes/views/experiences (with the term 'patient'), qualitative, interviews, focus groups, surveys
- <u>Dates</u>: Database inception to November 2024
- English-language
- Articles were excluded if they met the following criteria: did not describe patient perspective, no qualitative analysis, open-label studies, clinical practice
- Of the 49 abstracts identified, 20 met inclusion criteria for full-text examination (See Figure 1)
- 15 qualitative research studies
- 5 literature reviews

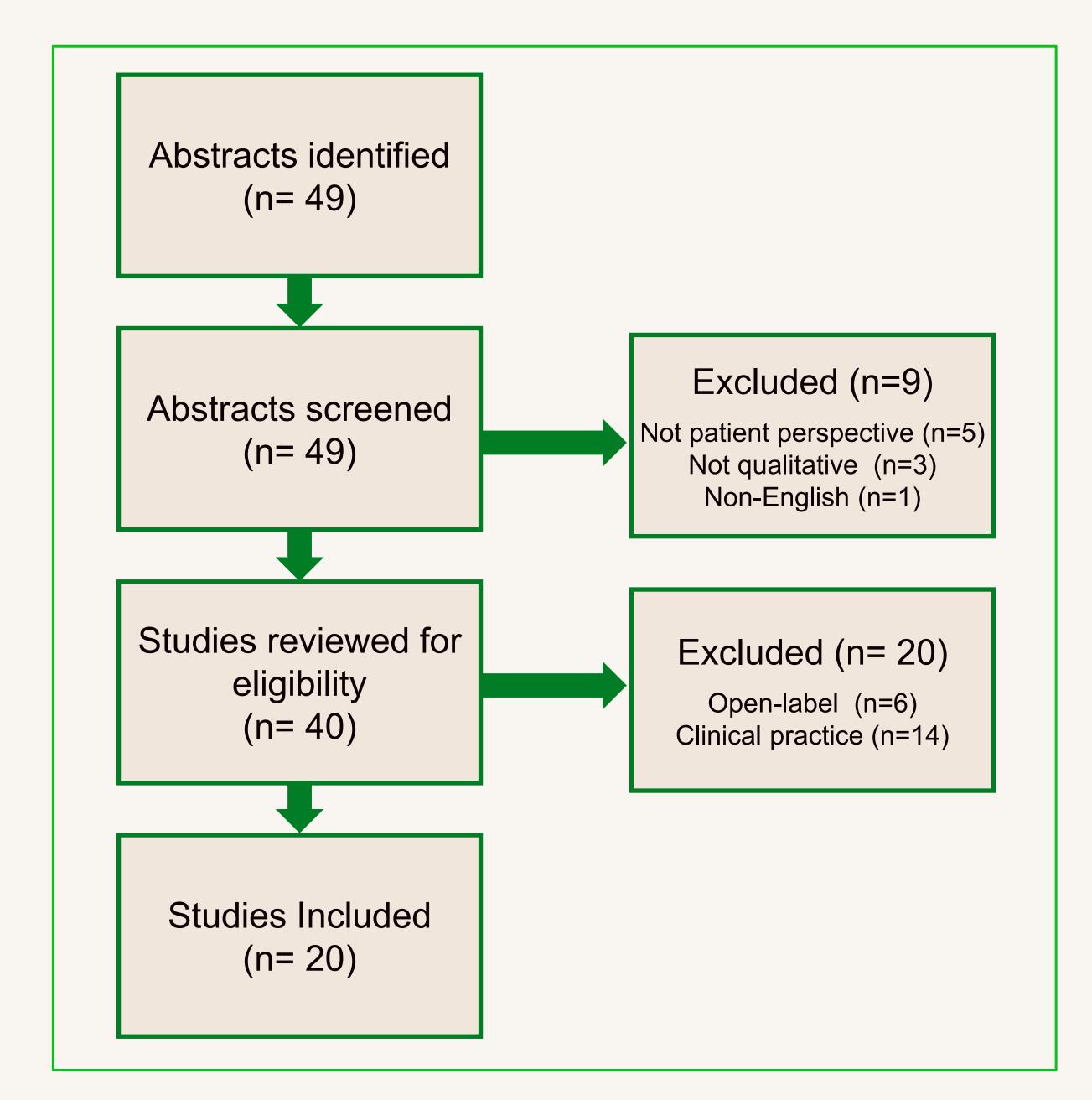


Figure 1. Flow diagram of the literature review process

Results

- Patient perspectives on the use of a placebo arm in a clinical trial are varied and complex based on:
- 1. Disease/Condition^{5,9}
- 2. Severity of Symptoms⁹
- 3. Overall Understanding of Placebo Treatment^{2,6,7}
- Patient understanding of the placebo effect may impact trial recruitment and retention or even the results (Figure 2)
- Patients (and caregivers) who fear that not receiving medication may negatively impact well-being are reluctant to participate in trials with a placebo group¹
- Participants may withdraw from a trial if they believe that they are receiving a placebo¹
- Participants may be hyperaware of the placebo effect and/or may alter/adjust their responses in attempt to account for it¹⁰
- However, there are mitigation strategies researchers can use to minimize these potential negative impacts (Figure 3)
- Participants may experience cognitive dissonance when reconciling their experience during the trial with the knowledge that they did not receive active treatment (Figure 4)

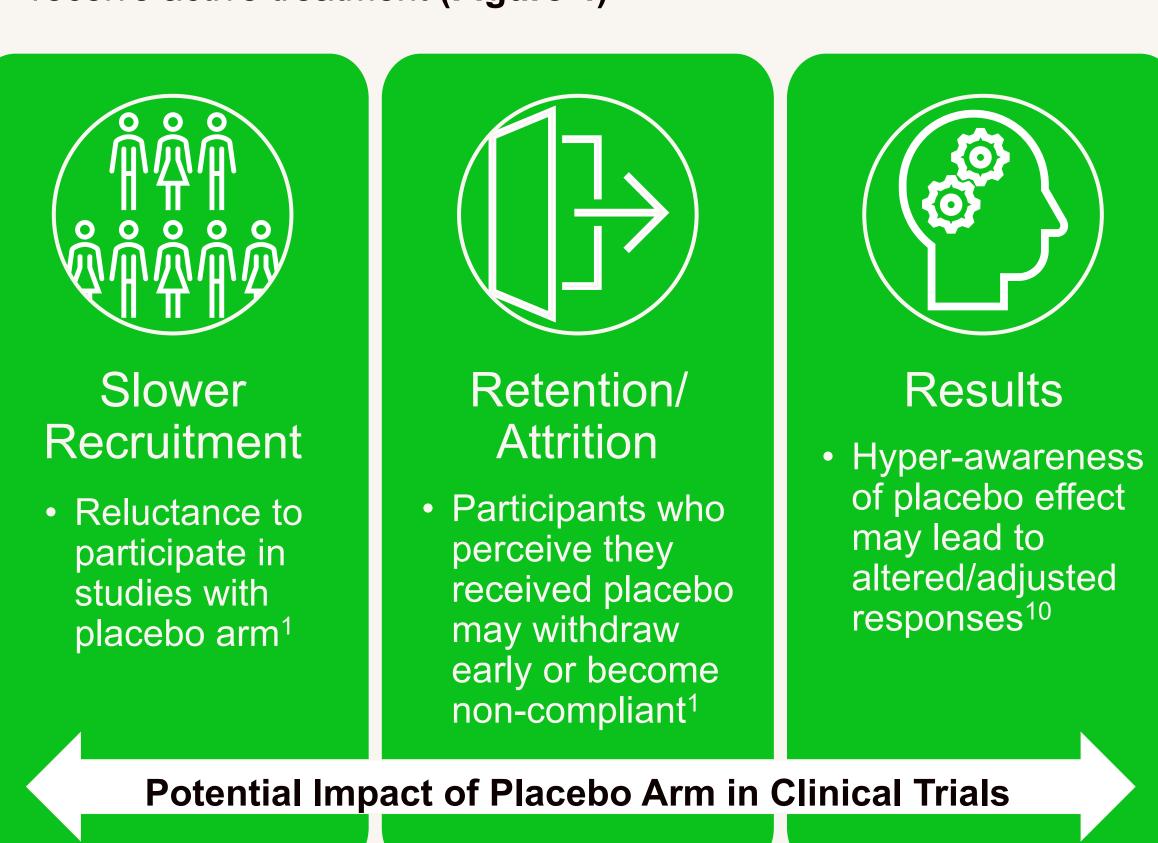


Figure 2: Potential Negative Effects of Including Placebo Arm

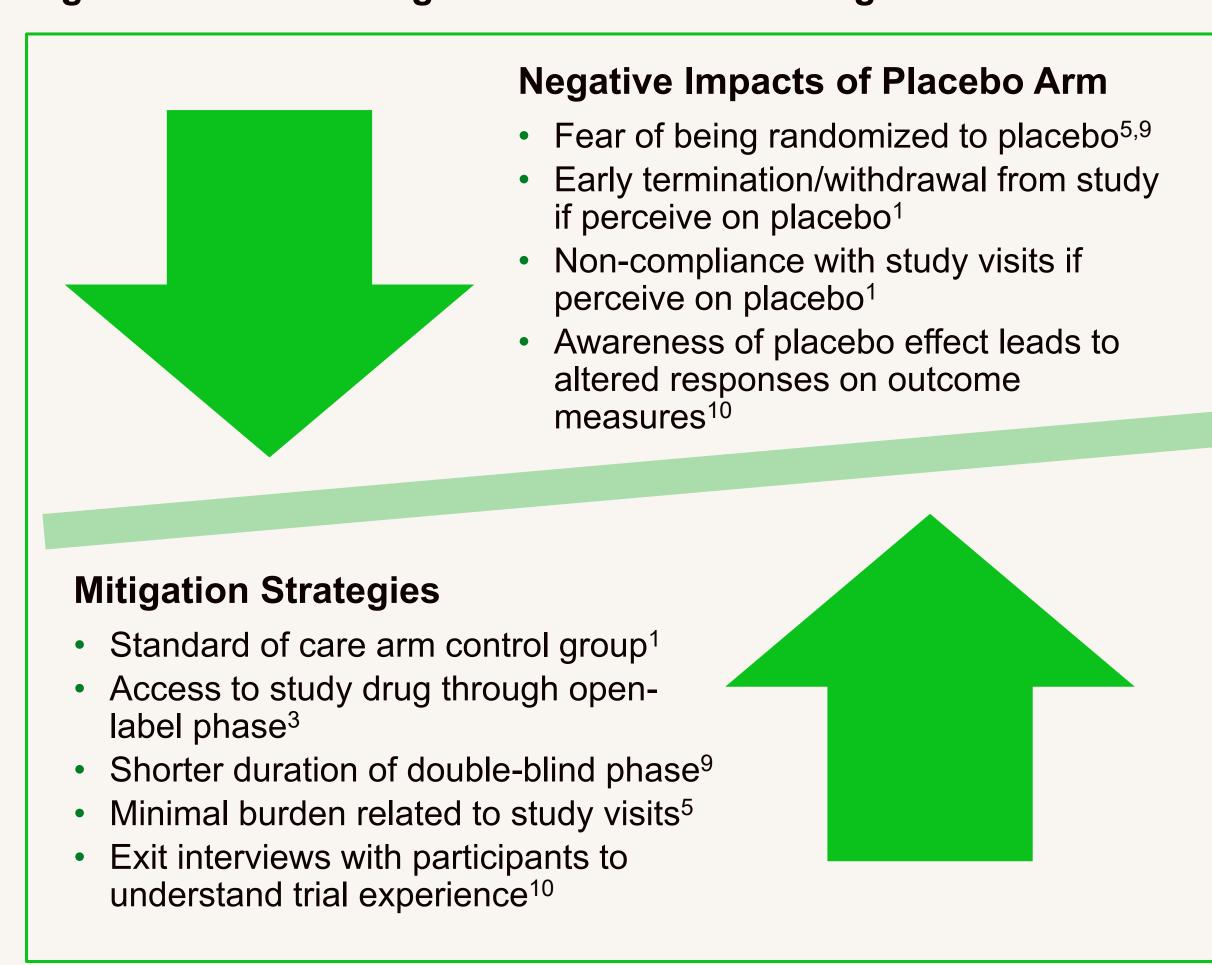


Figure 3: Mitigation Strategies for the Potential Negative Effects

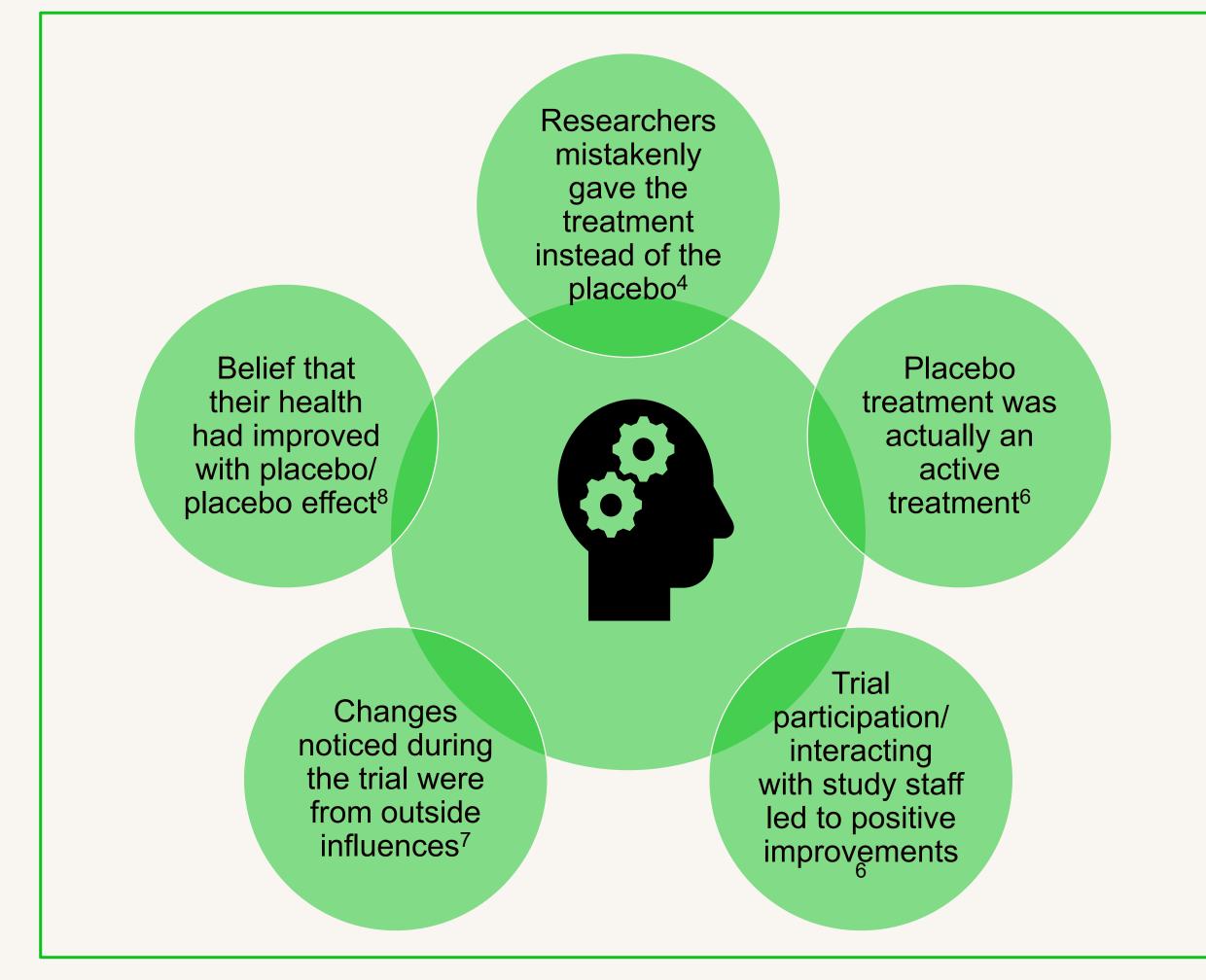


Figure 4: Participants' Cognitive Dissonance Regarding
Assignment to Placebo Arm

Standard of care treatment arm when possible

 Allowing the control group to continue with standard of care treatment may remove recruitment and retention difficulties regarding lack of treatment when randomized to a placebo group

Make study drug available after clinical trial, or have an open-label phase

- Many patients join clinical trials with the hope of improving their own well-being and may not see receiving the placebo treatment as beneficial
- For diseases that lack standard treatments, a trial drug can be the participants' only hope

Clearly explain placebo arm

- Recruitment materials should include layperson definitions of placebo and make it clear that placebo treatment is a sham treatment
- Explain the purpose of placebo groups in a clinical trial so patients understand

Conduct qualitative interviews to understand trial experience

 Implementing qualitative interviews will allow for a fuller picture of the trial experience and characterization of placebo effects

Debrief on randomization arm at end of trial ("unblinding")

- Most participants expressed curiosity regarding which treatment arm they had been assigned to
- While most trial participants did not report psychological distress upon debriefing, it is important to acknowledge that the experience could be distressing for some

Figure 5: Recommendations for Future Trials

Recommendations

- Figure 5 details patient-centric approaches to mitigate the potential negative effects of inclusion of placebo arms in clinical trials.
- Consideration should be given to the following:
- Use standard of care treatment arm as the control group when possible
- Offer access to the study drug after trial completion or include open-label phase
- Provide clear, easy-to-understand information about placebo treatment and the role of a placebo arm in recruitment materials
- Conduct qualitative exit interviews with participants to understand trial experience and better characterize placebo effects
- Unblind and debrief participants on randomization arm at the end of a trial

Conclusions

- The patient view of the use of placebos in clinical trials is nuanced and dynamic.
- Drug developers would benefit from an appreciation of patients' views of placebos within the context of use and incorporation of patient-centered approaches to attenuate participation barriers related to placebo randomization.

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SB, KW, EM are employees of Fortrea, Inc.

KJ and CC were employees of Fortrea, Inc. when the literature review was conducted.

