

Acceptability and Feasibility of Home-based Cognitive Testing and Blood Collection: Meeting participants where they are at the BHS

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Home-based cognitive testing and self-collected blood sampling were highly acceptable to Bogalusa Heart Study participants and sustained by deep institutional trust and altruism. Consistent communication, reminders, and blood-kit support are what keep participation feasible over time.

| INTRODUCTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | METHODS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RESULTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <ul style="list-style-type: none"><li>Home-based cognitive testing and self-collected blood sampling could expand ADRD research reach into rural and lower-income populations facing in-person barriers.</li><li>What drives <i>acceptability</i> and <i>feasibility</i> from the participant's own perspective is under-studied.</li></ul> <p><b>OBJECTIVE:</b> Use participant-centered qualitative methods (within ReACH-MIND, embedded in the Bogalusa Heart Study) to identify barriers and facilitators of sustained remote participation.</p> | <p><b>Figure 1.</b> Study design and sampling, with real time refinement.</p> <p><b>Acceptability was consistently high; feasibility hinged on communication and logistics.</b> Figure 2 organizes the themes as facilitators and barriers to sustained participation.</p> <p><b>QUOTES</b></p> <p>"My father has Alzheimer's... just to help the community."</p> <p>"Nobody in my house will poke me, and I can't poke myself."</p> <p>"You're in your home, you're comfortable... so I like it at home better."</p> <p>"I'm never going to remember all this."</p> <p>"If I didn't get a reminder, I wouldn't remember to do it."</p>                                                                                                                                                                                                                                                               | <p><b>Figure 2.</b> "Figure 2. Participant testing journey with stage specific facilitators, barriers, and real time refinement."</p> <p><b>Facilitators</b></p> <ul style="list-style-type: none"><li>Trust and belonging (BHS legacy and identity)</li><li>Meaning and altruism (science, community, family)</li><li>Home based convenience (comfort and control)</li><li>Staff support (training, quick tech help)</li><li>Consistent reminders (key driver of adherence)</li></ul> <p><b>Barriers</b></p> <ul style="list-style-type: none"><li>Competing priorities (time, work, family demands)</li><li>Information gaps (purpose, results, timing)</li><li>Inconsistent reminders (missed testing windows)</li><li>Blood kit friction (samples, return, handling)</li><li>Monotony over time (repetition and boredom)</li></ul> <p><b>Sustained participation in home based ADRD research</b></p> <p><b>Cross cutting theme: communication and information</b></p> <p>Purpose, reminders, results, and brain health education shape both acceptability and feasibility. A therapeutic misconception, the belief that testing strengthens memory, reflects the same information gap.</p> |
| METHODS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | RESULTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CONCLUSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p><b>Design:</b> Qualitative; in-depth semi-structured interviews; thematic analysis.</p> <p><b>Sample:</b> 29 interviews — 22 participants + 7 clinic staff; purposive sampling across enrollment duration and adherence.</p> <p><b>Explored:</b> study burden, technology usability, motivations, communication needs, self-collected blood experience. <b>Context:</b> Year 1 of a 3-year study; to date 80 participants have self-collected and returned blood; findings integrated in real time.</p>                                           | <p><b>Figure 2.</b> Participant testing journey with stage specific facilitators, barriers, and real time refinement.</p> <p><b>Participant testing journey</b></p> <p><b>Facilitators (above)</b></p> <ul style="list-style-type: none"><li>Valued training; trust in vetted program</li><li>Consistent reminders drive completion</li><li>Comfort, control, convenience at home</li><li>Easy and painless for most</li><li>Staff support when reaching out</li></ul> <p><b>Barriers (below)</b></p> <ul style="list-style-type: none"><li>Purpose of testing often unclear</li><li>Missed or irregular reminders</li><li>Competing priorities; monotony over time</li><li>Failed samples; hard to self apply</li><li>Return logistics; no receipt confirmation</li></ul> <p><b>Real time refinement loop</b></p> <p>Findings feed back to improve reminders, information, and blood kit support</p> | <ul style="list-style-type: none"><li>Acceptability was high and rooted in trust and belonging, that generalizes to other cohorts.</li><li>Feasibility depends on communication, consistent reminders, and blood kit support rather than the technology itself.</li><li>Participant informed findings are being applied in real time and will scale to all 260 enrolled participants.</li></ul> <p><b>FUTURE DIRECTIONS</b></p> <ul style="list-style-type: none"><li>Apply participant informed acceptability and feasibility measures across the full cohort.</li><li>Close information gaps and correct the belief that testing strengthens memory.</li><li>Inform scalable, inclusive remote ADRD research for underrepresented rural populations.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                               |