Tiny Hooves, Big Impact

A Nurse-Led Feasibility and Acceptability Study of the Diabetes & Equine Empowerment Program (DEEP) for Children and Adolescents with Diabetes

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Background

- Diabetes distress and missed visits can disrupt self-management in youth.
- DEEP pairs diabetes education with miniature equine-assisted learning to support engagement, coping, and self-advocacy.

Prior pilot: rationale for DEEP

93%

- visit attendance
- 50 of 54 scheduled visits



- October 2025–May 2026: attendance reflects visits, not unique participants.
- Prior pilot findings support adapting DEEP for youth. These are not DEEP trial results.

Study Purpose

Assess feasibility, acceptability, and safety of nurse-led, clinic-embedded DEEP for youth with diabetes.

Participants

Up to 25

youth–caregiver dyads

- Youth Ages 8–20 years
- A1C ≥9% or no clinic visit for >6 months
- **Recruitment:** EHR screening and outreach with age-appropriate consent/assent. [1]



Methods

- **Design:** Single-arm, mixed-methods pre–post feasibility study at Nemours, Jacksonville. [1]
- **IRB approval:** April 2026.

Outcome measures and protocol benchmarks [1,2]

Outcome	Assessment / benchmark
Recruitment	≥33%
Retention	≥80%
Completion	≥75%
Acceptability	≥80% satisfied and willing to recommend
Diabetes distress	Pre/post: youth PAID-C/PAID-T; caregiver PPAID-C/PPAID-T
Self-care	Pre/post: self-care measures
Follow-up	≤6 months: attendance, A1C/TIR, CGM/pump starts
Safety and fidelity	Screening, hygiene, supervision, checklists, stopping rules, incident reporting

DEEP Sessions

Four 20–30-minute sessions, monthly or every other month, led by APRN and ESMHL-certified handler. [1]



1. **Meet and Greet** — Rapport and consent to touch
2. **Horse and Human Sense** — Grooming and relaxation
3. **Follow and Reflect** — Problem-solving and asking for help
4. **Lead and Empower** — Obstacles and self-advocacy





Implications & Next Steps

- Complete the DEEP trial: feasibility, acceptability, safety, distress, self-care, and engagement.
- Use results to improve DEEP and plan a future study to test effectiveness.

References

1. Pfieffer J. Tiny Hooves, Big Impact. Study Protocol and Statistical Analysis Plan. v1.0. Nemours. September 4, 2026.
2. Jaser SS, et al. SCI-U validation. Diabetes Res Clin Pract. 2025;224:112218. doi:10.1016/j.diabres.2025.112218.