



Evidence-based Research

NICU2Home publishes the efficacy of their App in peer-reviewed journals and presents their work at major conferences

Supporting parents of premature infants transitioning from the NICU to home: A pilot randomized control trial of a smartphone application. Garfield, C., Lee, Y., Kim, H., Rutsohn, J., Khan, H., Mustanski, B. & Mohr, D. (2016) Published in Internet Intervention, May 4 (Pt 2):131-137

Study Details:

- **A 4-week randomized controlled trial**
- **90 Parents of Very Low Birth Weight Infants (VLBW)**, randomized to usual care (n=44) or usual care + NICU2Home (n=46).
- **Evaluated**
 - Parental Sense of Competence (PSOC) at baseline, day after discharge, and 2 weeks post-discharge
 - Secondary Outcomes: preparedness for discharge and length of stay

Findings:

- **Primary Outcome**
 - Parental Sense of Competence (PSOC)
 - 7% increase in intervention group compared to control group
 - 14% increase above average user vs control (dose-dependent improvement)
 - 11% increase average user vs control
 - 6% increase below average user vs control
- **Secondary Outcomes**
 - Decreased Length of Stay (LOS)
 - LOS 1-day shorter for above-average users compared to control group
 - Discharge Preparedness - Feeling prepared for their infant's discharge
 - Intervention group reported higher endorsements compared to control group
 - Above average user group had higher endorsements compared to all other groups
 - Key Points
 - Parents of VLBW infants had improved parental self-efficacy and discharge preparedness - largely influenced by usage of NICU2Home.
 - Low parental self-efficacy associated with depression; children with overly concerned parents may have restricted social development and behavioral problems.
 - Parents who are well-supported by NICU2Home feel more confident and prepared for discharge, resulting in shorter infant LOS.

A mobile health intervention to support parenting self-efficacy in the neonatal intensive care unit from admission to home. Garfield, C., Kerrigan, E., Christie, R., Jackson, K. & Lee, Y. (2022). Published in the Journal of Pediatrics, May:244:92-100

Study Details:

- **A quasiexperimental, time-lagged study**
- **Enrollment:**
 - Control period enrollment: April - August 2018
 - Intervention period enrollment: February - October 2019
 - 298 Parents of premature infants (256 completed 1 or more PSOC screenings)
 - Control group, 43%; Intervention group, 57%
 - Nurses (24)
- **Evaluated**
 - Parental self-efficacy: at NICU admission, 1 day before discharge, then 14, and 30 days post-discharge
 - Used validated self-reporting method to measure parental self-efficacy and confidence

Findings:

- **Primary Outcome**
 - Parental Sense of Competence (PSOC)
 - Parents in intervention group consistently reported higher PSOC scores compared to control group from first measurement and onward
 - Average and above-average users had significantly higher PCOS scores compared with controls or below-average users
 - Taps per Day (intervention group)
 - Average use of app 15 taps/day
 - Above-average group - 29 tap/day
 - Average group - 12 taps/day
 - Below average group - 5 taps/day
 - NICU2Home Feedback from nurses
 - 92% strongly agree helps parents better understand baby's stay in NICU
 - 80% strongly agree improved communication between staff and family
 - 95% strongly agree daily update useful in keeping parents aware of the baby's progress in last 24 hours
- **Key Points**
 - Parents of premature infants who used NICU2Home, especially those who used it more frequently, reported consistently higher self-efficacy throughout the study period compared to the control group.
 - Solutions like NICU2Home are valuable in helping parents navigate challenging and stressful situations.
 - Parental self-efficacy has been linked to positive outcomes for child development: improved parent-infant bonding, parental wellness, and competence plus decreased parental stress and anxiety.