Study Title: Effects of a Dyadic Discharge Readiness Intervention Based on the Information–Motivation–Behavioral Skills Model on High-Risk Obstetric Couples: A Randomized Controlled Trial

Objectives:

This study, from the perspective of high-risk pregnancy, aims to develop a practical dual discharge preparation intervention based on the Information-Motivation-Behavioral Skills (IMB) model and the dual-process coping theory. The goal is to improve discharge readiness for high-risk pregnant women and their spouses, enhance maternal and neonatal care capabilities, ensure maternal and infant safety, and promote family well-being.

Study Design:

This is a quasi-experimental study conducted from May to September 2025 in a tertiary hospital in Anhui Province. Eighty high-risk pregnant women and their spouses will be recruited. Participants in Ward 1 (n=40) will be assigned to the intervention group, while participants in Ward 2 (n=40) will serve as the control group. The control group receives standard obstetric care, while the intervention group receives an IMB-based dual discharge preparation program in addition to routine care. Outcome measures are assessed at baseline, at discharge, and 42 days postpartum.

Interventions:

Control group: Standard obstetric care including routine health education, discharge guidance, and follow-up calls on postpartum day 7 and 42.

Intervention group: IMB-based dual discharge preparation program including information education, care skills training, dual psychological support, transitional care planning, and continuous health support delivered through both individual and group interventions from admission through 42 days postpartum.

Inclusion Criteria:

Women: High-risk pregnancy with term delivery, aged ≥18, conscious, able to communicate independently, co-rooming with newborn, and voluntary participation.

Spouses: Aged ≥18, primary caregiver providing ≥4 hours daily care, voluntary participation.

Exclusion Criteria:

Women: Severe obstetric complications, psychiatric illness, communication difficulties.

Spouses: Severe physical or psychiatric illness preventing participation.

Sample Size:

Calculated based on discharge readiness scores with an expected standard deviation of 3.47, allowable error $\delta=2.8$, $\alpha=0.05$, $\beta=0.1$, yielding 33 pairs per group, expanded by 20% to 40 pairs per group.

Outcome Measures:

Maternal outcomes: Discharge readiness (RHDS-NMF), parenting competence (C-PSOC), adverse maternal and neonatal events within 42 days.

Spouse outcomes: Caregiver discharge readiness (CPS), parenting competence (C-PSOC), caregiver strain (CSI).

Data Collection and Analysis:

Baseline data collected pre-intervention, discharge data collected at discharge, and follow-up data at 42 days postpartum.

Statistical analysis using SPSS 26.0: descriptive statistics, t-tests, chi-square, rank sum tests, repeated measures ANOVA or generalized estimating equations as appropriate. Significance set at $\alpha=0.05$.

Quality Control:

Researchers trained in maternal and neonatal care, IMB-based intervention delivery, and data collection.Intervention consistency ensured by standardized manuals and training.Data double-entered and checked for accuracy.

Ethical Considerations:

Voluntary participation with informed consent.

Confidentiality strictly maintained.

No harm anticipated; participants may withdraw at any time without impact on care.