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Assessing the Effectiveness of Parenting Program on Promoting Parent-Child Interactions and Home Environment through Cluster RCT in Rural Maharashtra.

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Introduction/Rationale: Situation of Early Child Development is worrisome in remote rural areas. Child Development Index (CDI) of Maharashtra was 0.769 (2014-15; NHFS 3). India ranks 112 in the CDI (Save the Children). It has been observed that children born into poverty develop very poorly and their parents hardly play with their children. Parent support programmes can enhance the positive effects on child development outcomes. Through parenting program delivered at home visits, mothers can be provided with toys and books and demonstrated how to play with their child to improve their development. This study was designed to assess effectiveness of Parenting Program on improvement of mother-child interactions and home environment at 2 years of child age.

Objective: To assess the effectiveness of Positive Parenting sessions delivered through Home visits on Home Environment and Mother Child interactions at 12 and 18 months of child age.

Design/Method: This was a community-based cluster-randomised trial, conducted in two adjacent blocks of Nagpur and Wardha districts of Maharashtra. 656 pregnant women were enrolled in second trimester of pregnancy and their children were assessed at 12 and 18 months of age. Study population was randomised in intervention (n=326) and control (n=330) groups. Intervention included delivery of customized age-specific Positive Parenting sessions through home visits by trained and certified Peer Mentors. Control group received routine services of govt and ICDS. Assessments were done using Observation of Mother-child Interactions (OMCI) and Home Scale Coding (HSC) tools at 12 and 18 months of age. Data was analysed using STATA 14M. Total scores for each tool were calculated for all children. Mean scores for intervention and control groups and effect size of change between intervention and control group scores were calculated.

Results: At 18 months of child age: Mean OMCI score for intervention arm was 40.37 (SD 5.42 95%CI 39.75-40.99) and for control arm, it was 38.2 (SD 6.01 95%CI 37.50-38.89). The difference was statistically significant ($p=0.000$, ICC=0.228) with moderate effect size (Cohen's D 0.4).

Mean HSC score for intervention arm was 36.58 (SD 4.28 95%CI 36.08-37.06) and for control arm, it was 35.61 (SD 4.65 95%CI 35.07-36.14). The difference was statistically significant ($p=0.008$, ICC=0.089) with moderate effect size (Cohen's D 0.3).

Conclusion: Positive Parenting intervention can promote home environment and mother-child interactions ultimately improving child development outcomes.

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