

## 'Go Baby Go'; Community-Based Integrated Early Childhood and Maternal Child Health Model Improving Early Childhood Stimulation, Care Practices and Developmental Outcomes in Armenia: A Quasi-Experimental Study

**Authors :** Viktorya Sargsyan, Arax Hovhannesian, Karine Abelyan

**Abstract :** Introduction: During the last decade, scientific studies have proven the importance of Early Childhood Development (ECD) interventions. These interventions are shown to create strong foundations for children's intellectual, emotional and physical well-being, as well as the impact they have on learning and economic outcomes for children as they mature into adulthood. Many children in rural Armenia fail to reach their full development potential due to lack of early brain stimulation (playing, singing, reading, etc.) from their parents, and lack of community tools and services to follow-up children's neurocognitive development. This is exacerbated by high rates of stunting and anemia among children under 3(CU3). This research study tested the effectiveness of an integrated ECD and Maternal, Newborn and Childhood Health (MNCH) model, called "Go Baby, Go!" (GBG), against the traditional (MNCH) strategy which focuses solely on preventive health and nutrition interventions. The hypothesis of this quasi-experimental study was: Children exposed to GBG will have better neurocognitive and nutrition outcomes compared to those receiving only the MNCH intervention. The secondary objective was to assess the effect of GBG on parental child care and nutrition practices. Methodology: The 14 month long study, targeted all 1,300 children aged 0 to 23 months, living in 43 study communities the in Gavar and Vardenis regions (Gegharkunik province, Armenia). Twenty-three intervention communities, 680 children, received GBG, and 20 control communities, 630 children, received MCHN interventions only. Baseline and evaluation data on child development, nutrition status and parental child care and nutrition practices were collected (caregiver interview, direct child assessment). In the intervention sites, in addition to MNCH (maternity schools, supportive supervision for Health Care Providers (HCP), the trained GBG facilitators conducted six interactive group sessions for mothers (key messages, information, group discussions, role playing, video-watching, toys/books preparation, according to GBG curriculum), and two sessions (condensed GBG) for adult family members (husbands, grandmothers). The trained HCPs received quality supervision for ECD counseling and screening. Findings: The GBG model proved to be effective in improving ECD outcomes. Children in the intervention sites had 83% higher odd of total ECD composite score (cognitive, language, motor) compared to children in the control sites (aOR 1.83; 95 percent CI: 1.08-3.09; p=0.025). Caregivers also demonstrated better child care and nutrition practices (minimum dietary diversity in intervention site is 55 percent higher compared to control (aOR=1.55, 95 percent CI 1.10-2.19, p =0.013); support for learning and disciplining practices (aOR=2.22, 95 percent CI 1.19-4.16, p=0.012)). However, there was no evidence of stunting reduction in either study arm. The effect of the integrated model was more prominent in Vardenis, a community which is characterised by high food insecurity and limited knowledge of positive parenting skills. Conclusion: The GBG model is effective and could be applied in target areas with the greatest economic disadvantages and parenting challenges to improve ECD, care practices and developmental outcomes. Longitudinal studies are needed to view the long-term effects of GBG on learning and school readiness.

**Keywords :** early childhood development, integrated interventions, parental practices, quasi-experimental study

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