

Behavioral Intervention with Maternal Participatory Guidance Improves Preterm Infant Outcomes

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Challenges that Premature Infants Face

- **Communicating via Social Behaviors and Social Interaction**
- **Successful Oral Feeding**
- **Growth**
- **Motor, Language, and Social Development**
- **Optimal Health**

Purpose

Determine how a maternally administered behavioral intervention improves premature infant social behavior, mother-infant interaction, oral feeding, growth, development, and health.









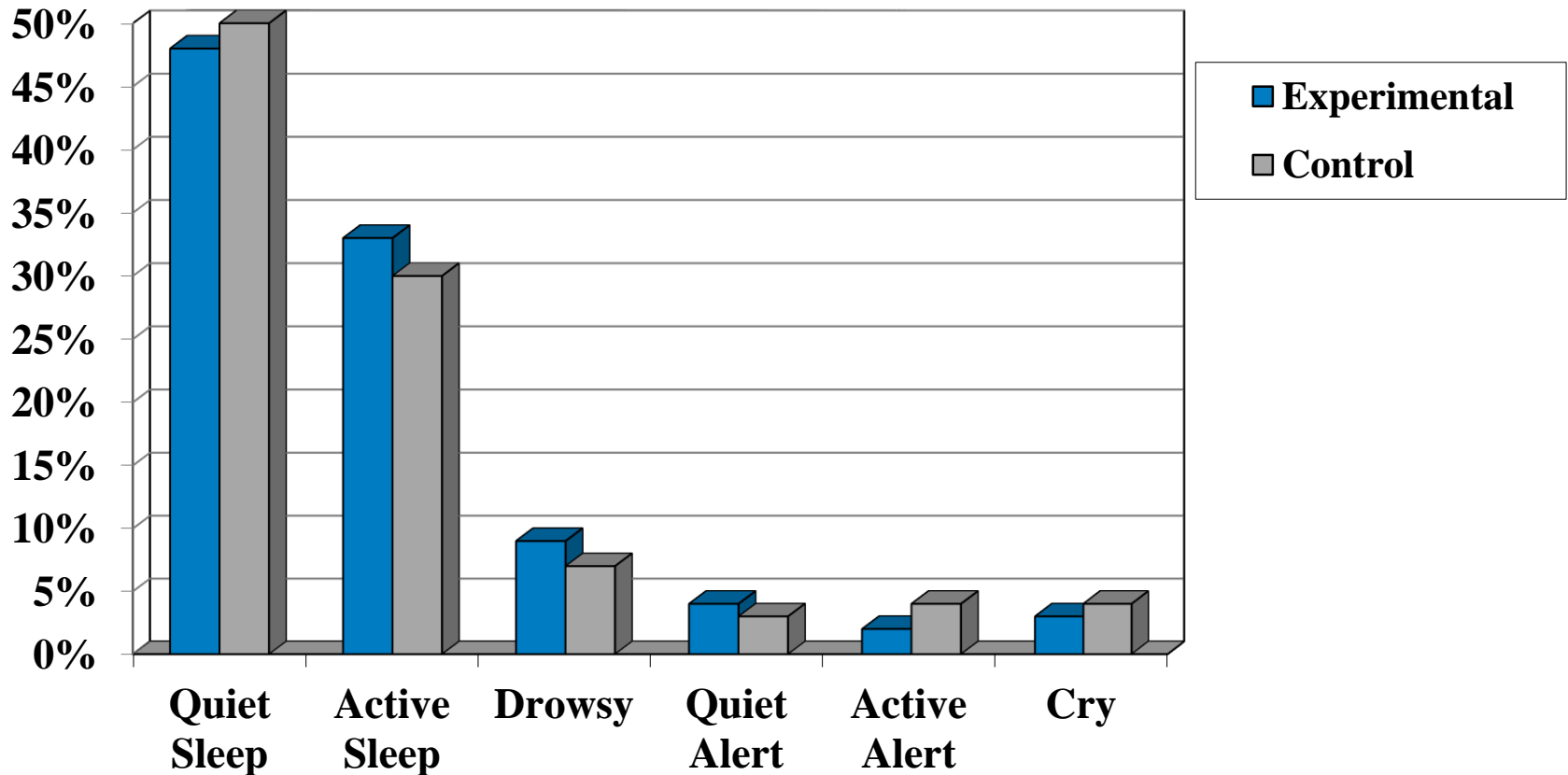




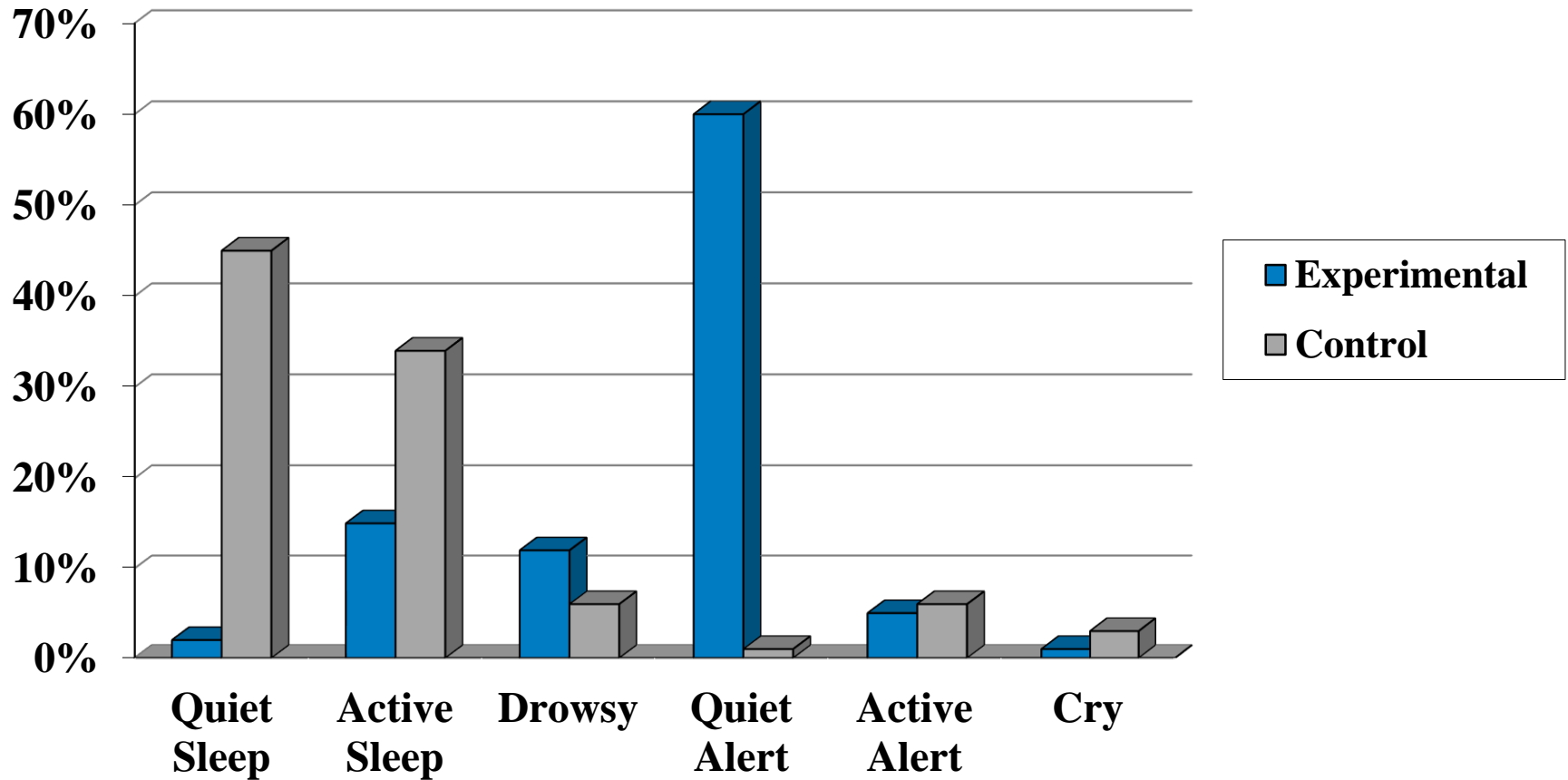




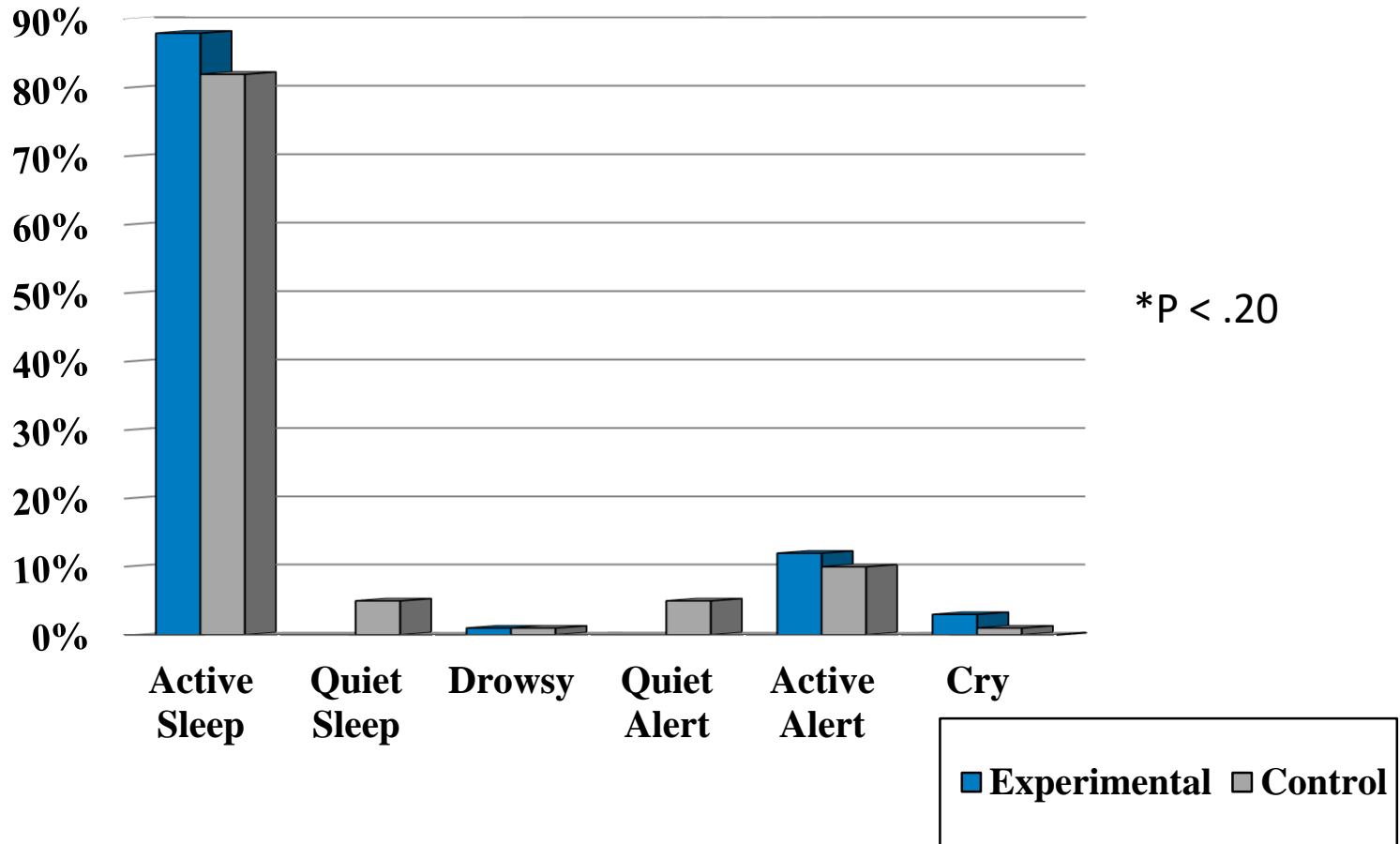
Distribution Of Infant Behavioral State By Group At Baseline - 35 Weeks – Stable Infants



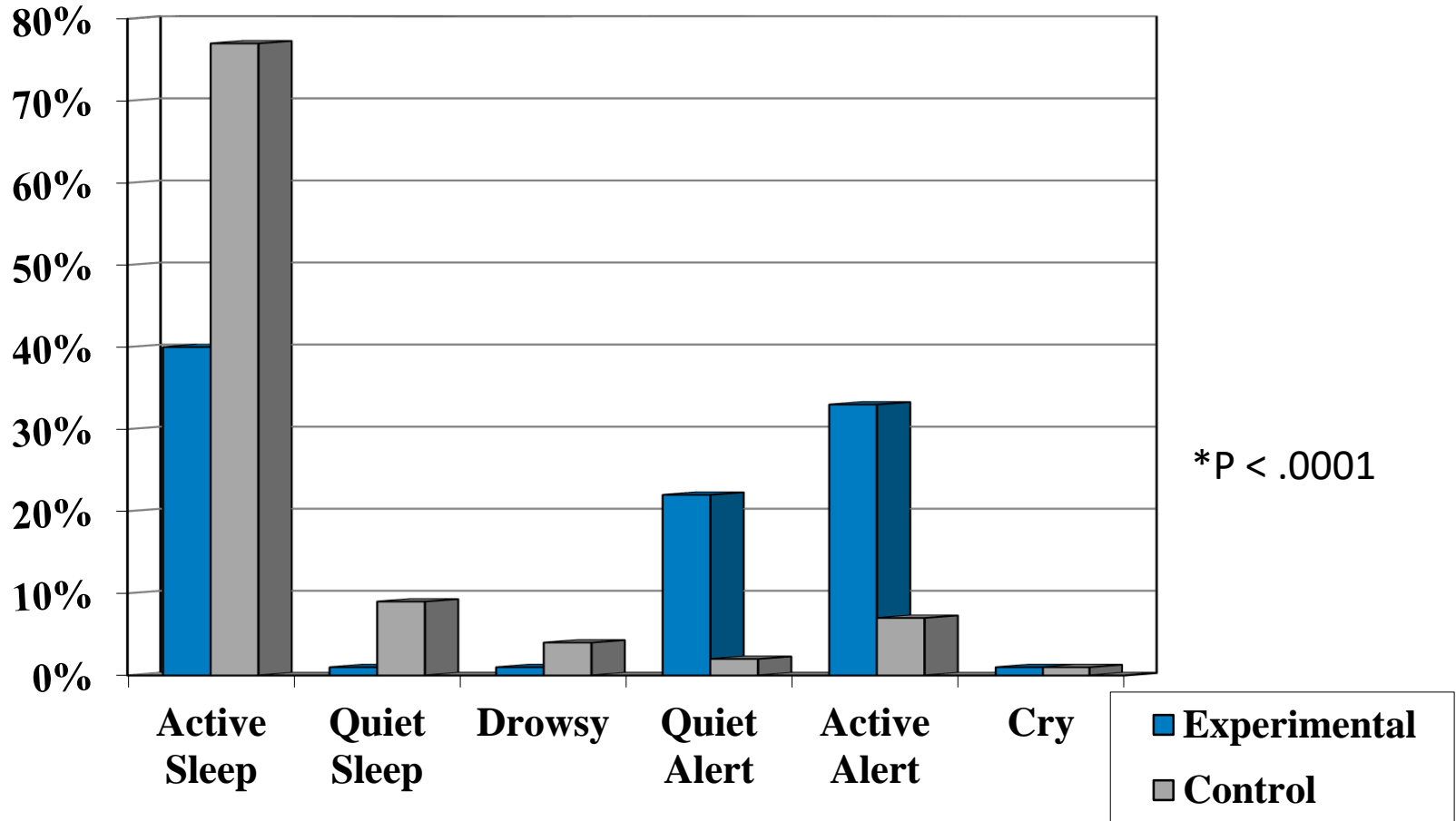
Distribution Of Infant Behavioral State By Group Immediate Post-Intervention



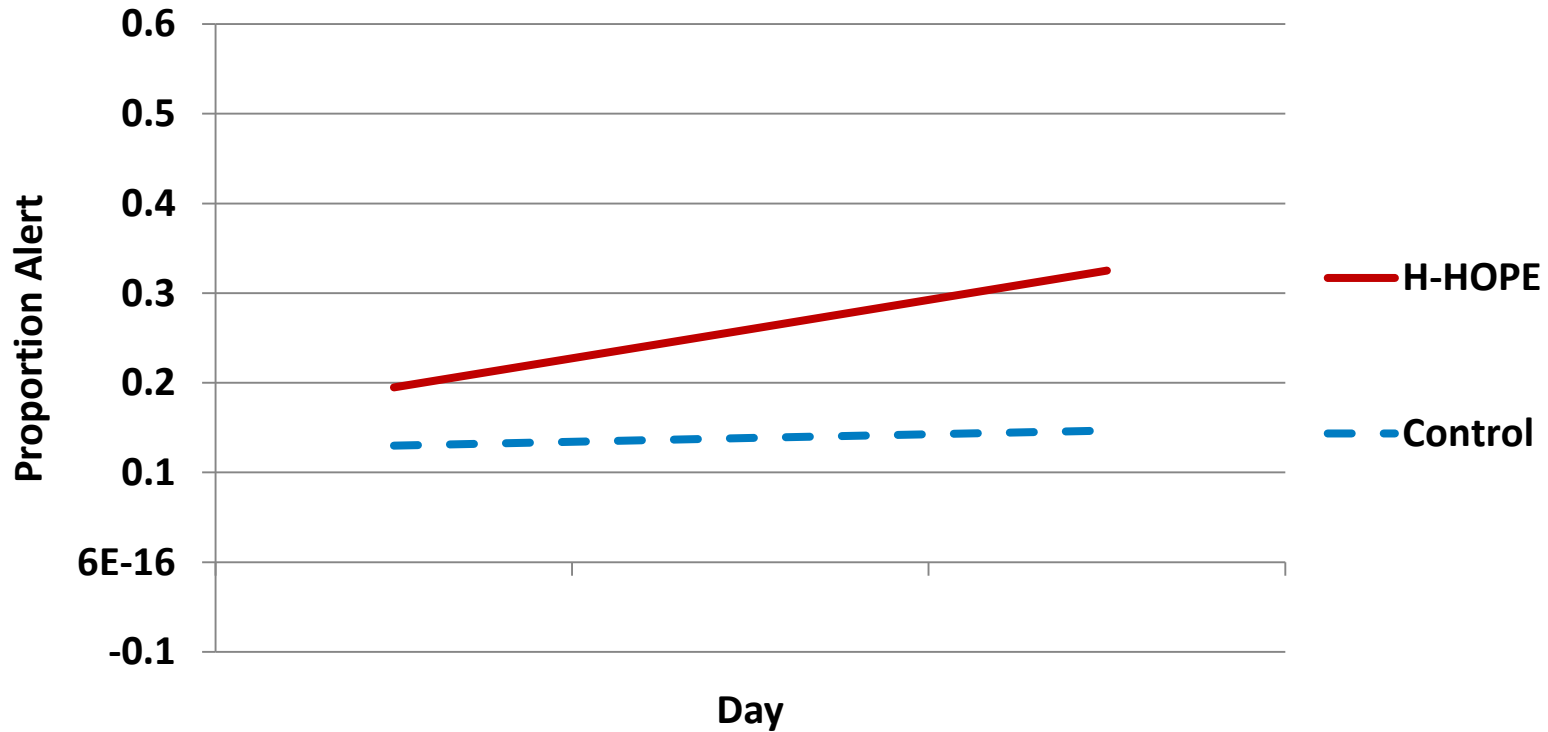
Distribution Of Infant Behavioral State By Group At Baseline 33 Weeks – Stable Infants



Distribution Of Infant Behavioral State By Group Immediate Post-Intervention



Mean Proportion of Time Spent in the Alert Behavioral State - Immediate Post-Intervention

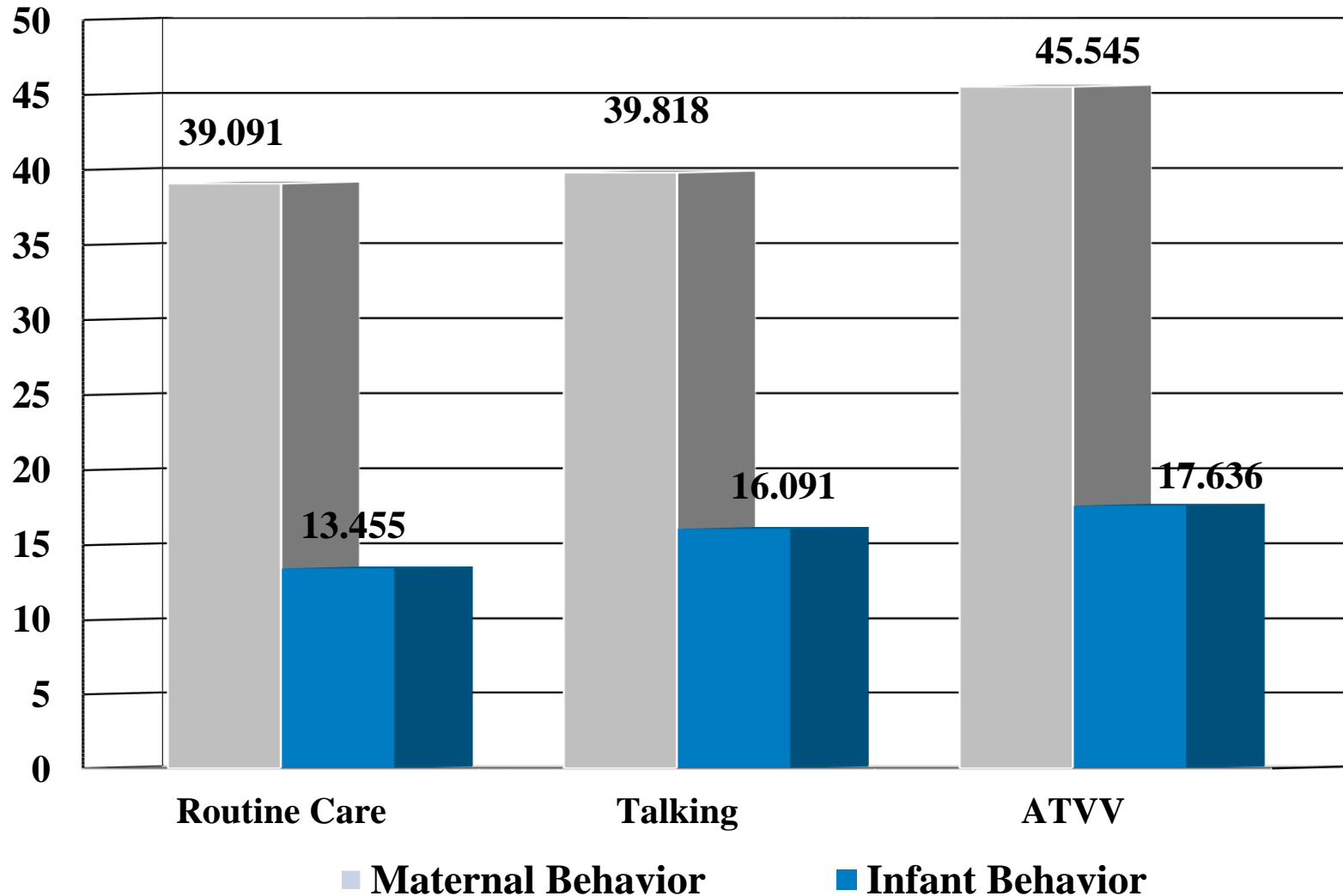


Social Communication Behavioral Cues by Group

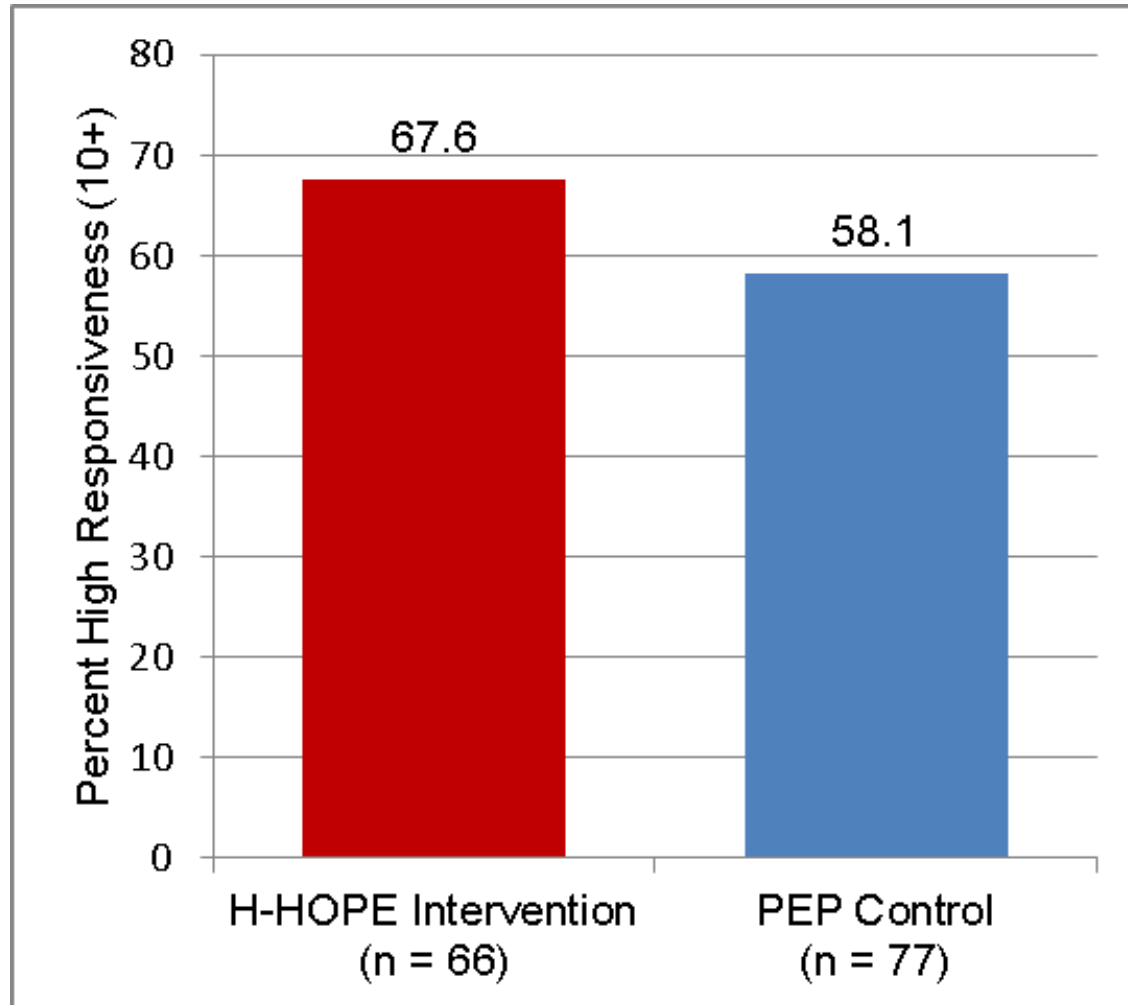
	ATVV *	KC	p value
T Engagement	21.3	15.7	.06
T Disengagement	24.6	12.4	.0003
S Engagement	18.6	18.4	ns
P Engagement	24.4	12.6	.0003
S Disengagement	25.1	11.9	<.0001
P Disengagement	22.9	14.1	.006

* Mean

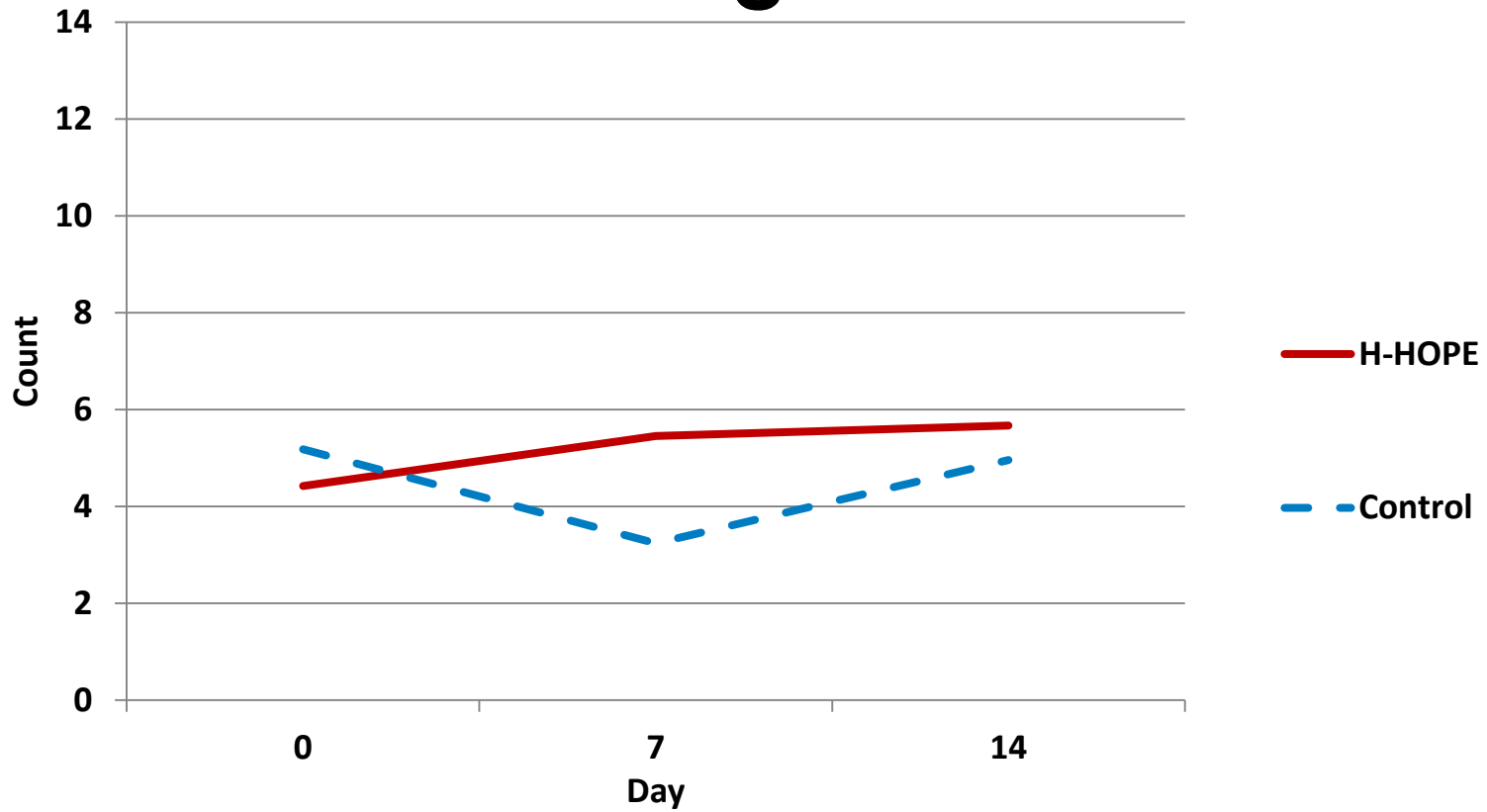
Maternal and Infant Behavior During Feeding



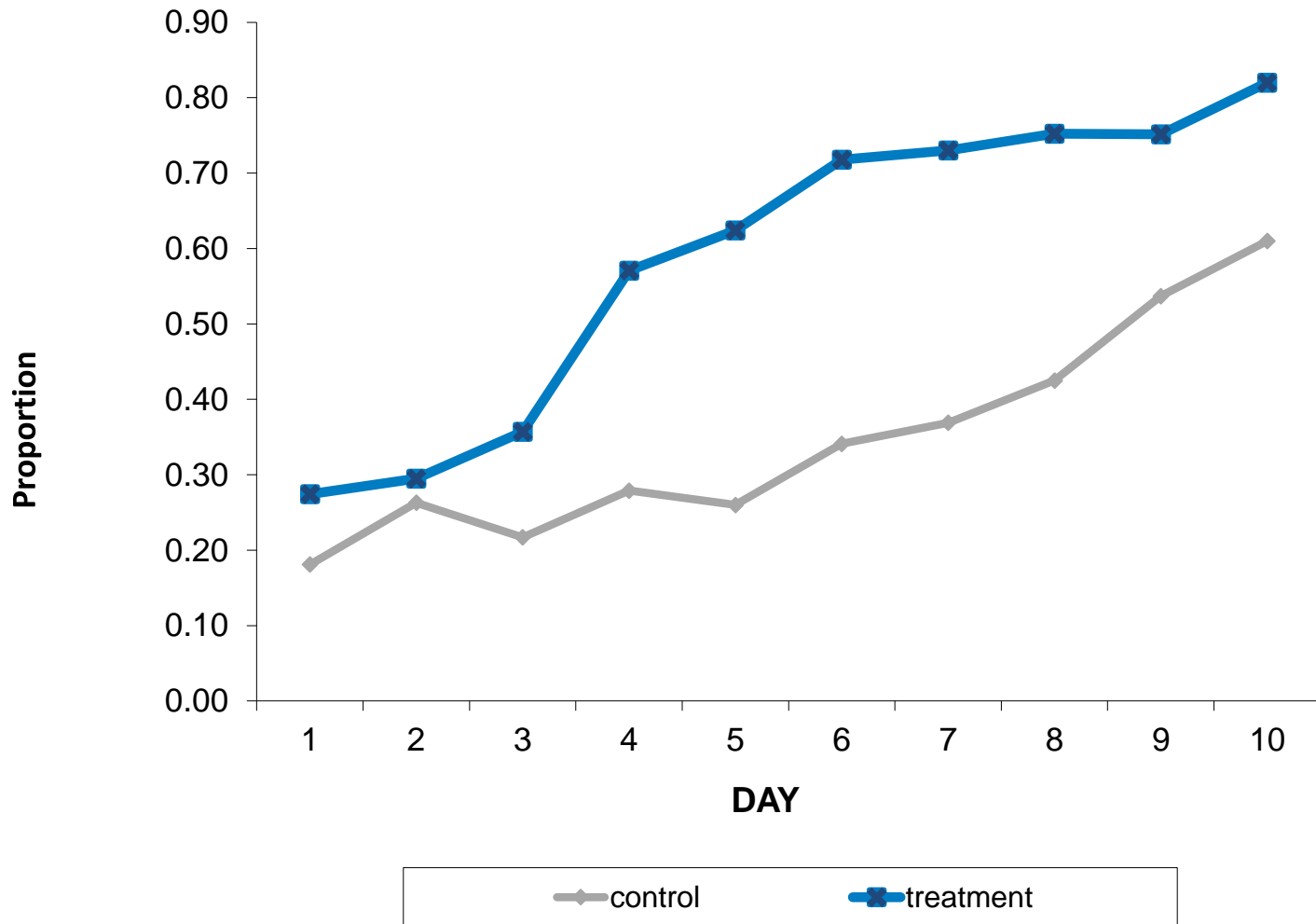
Percent of Dyads with High Responsiveness During Play



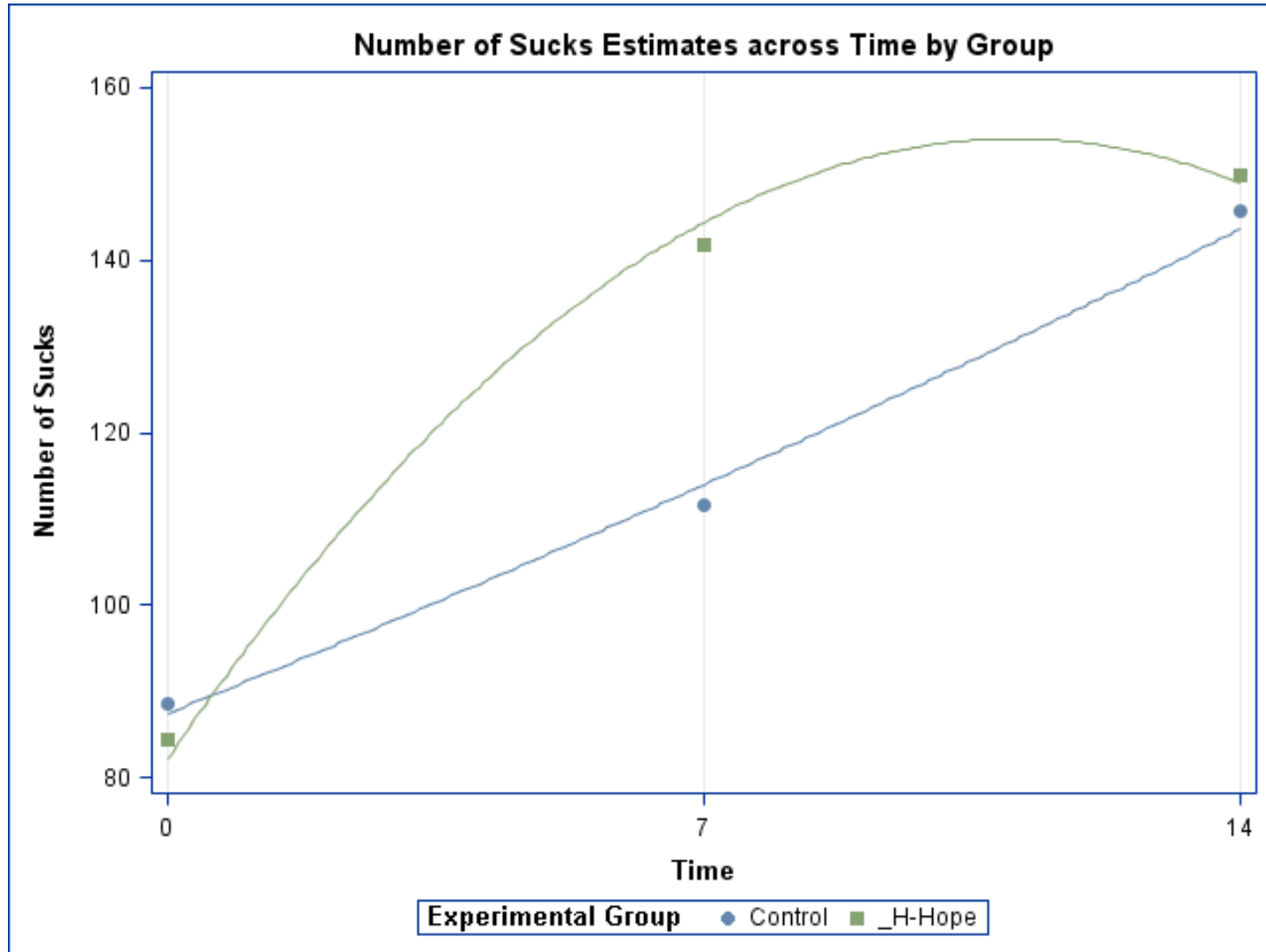
Mean Count of Total Orally Directed Behaviors One Minute After ATVV – Prior to Feeding



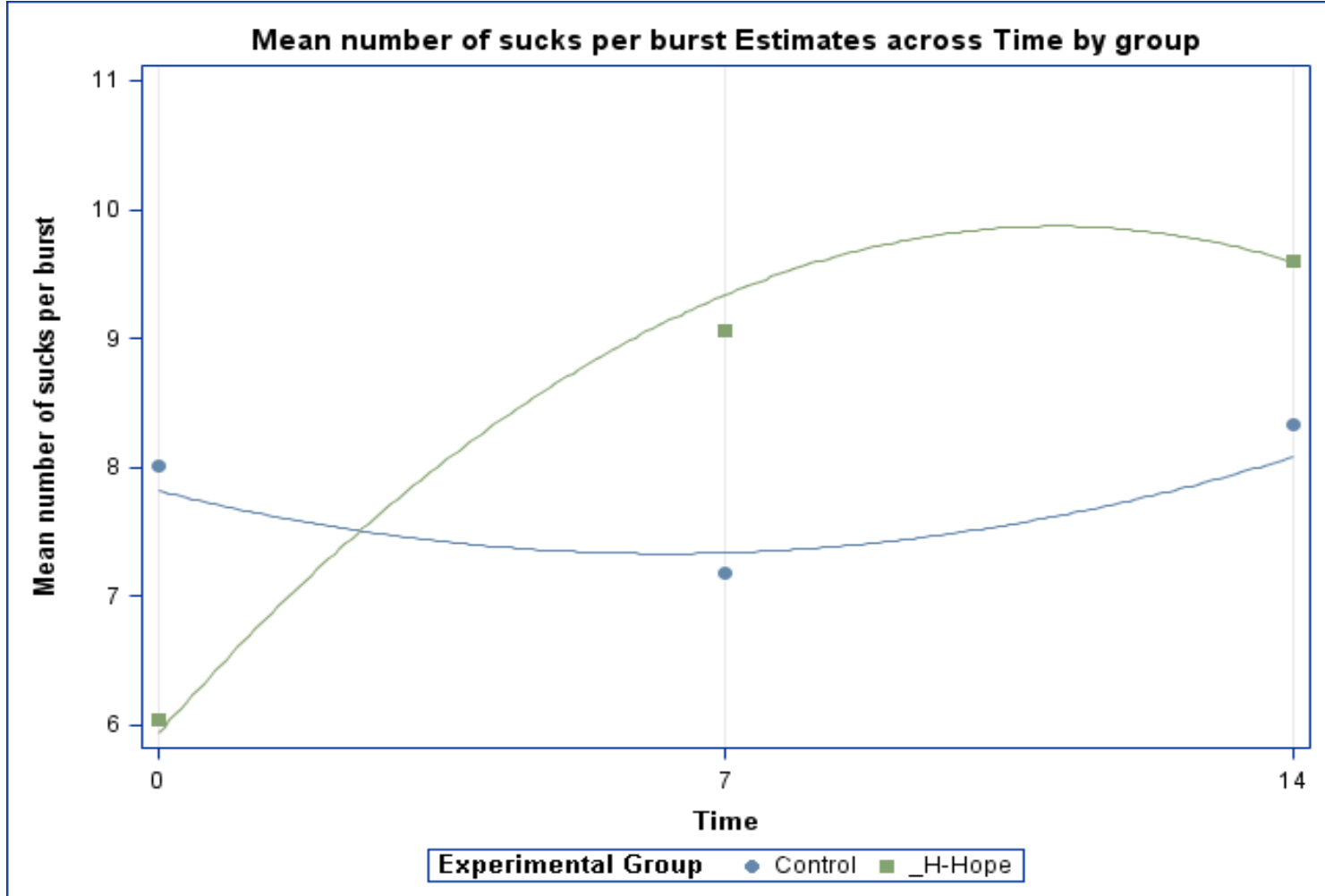
Proportion of Oral Feeding Intake by Day



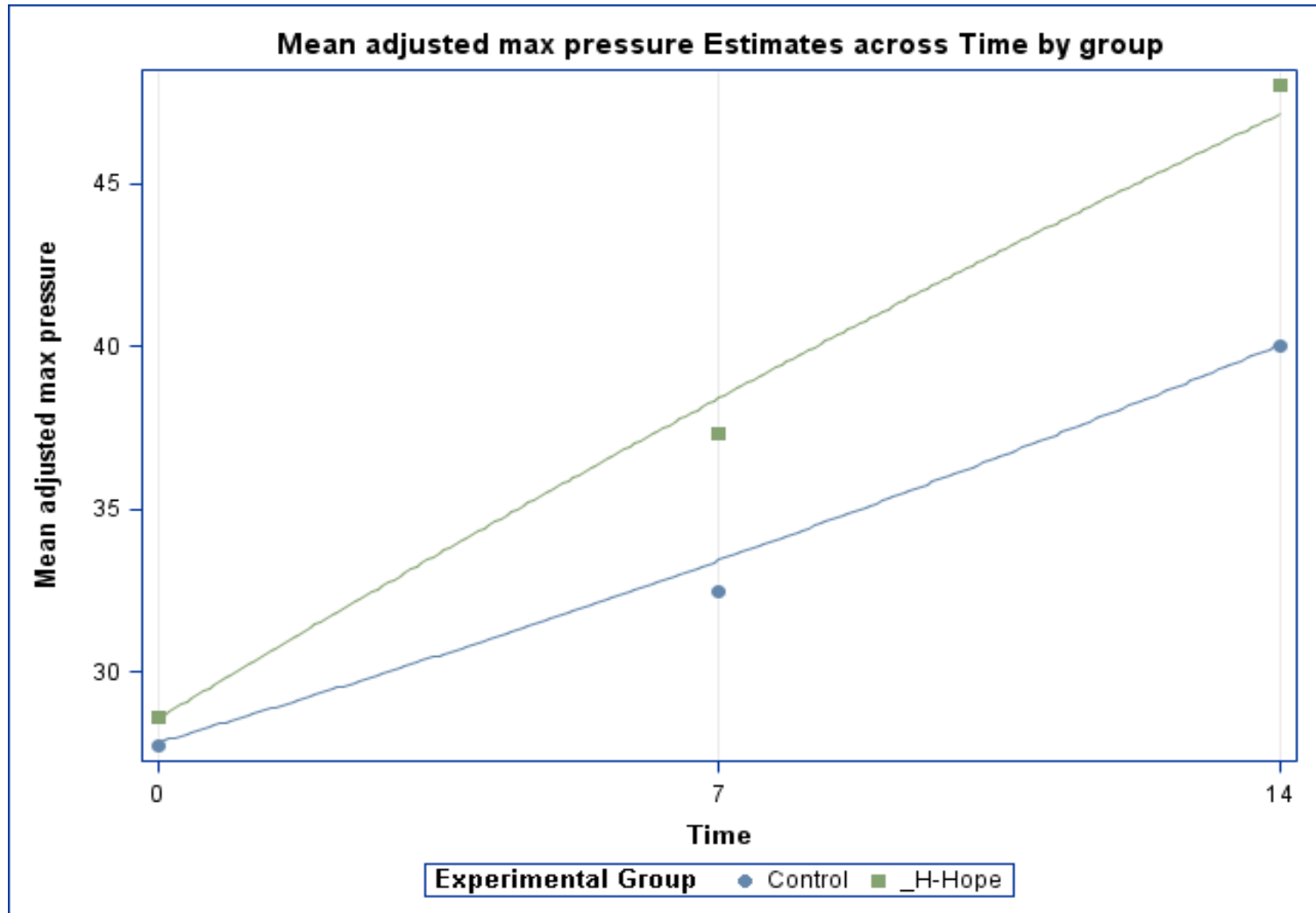
Number of Sucks



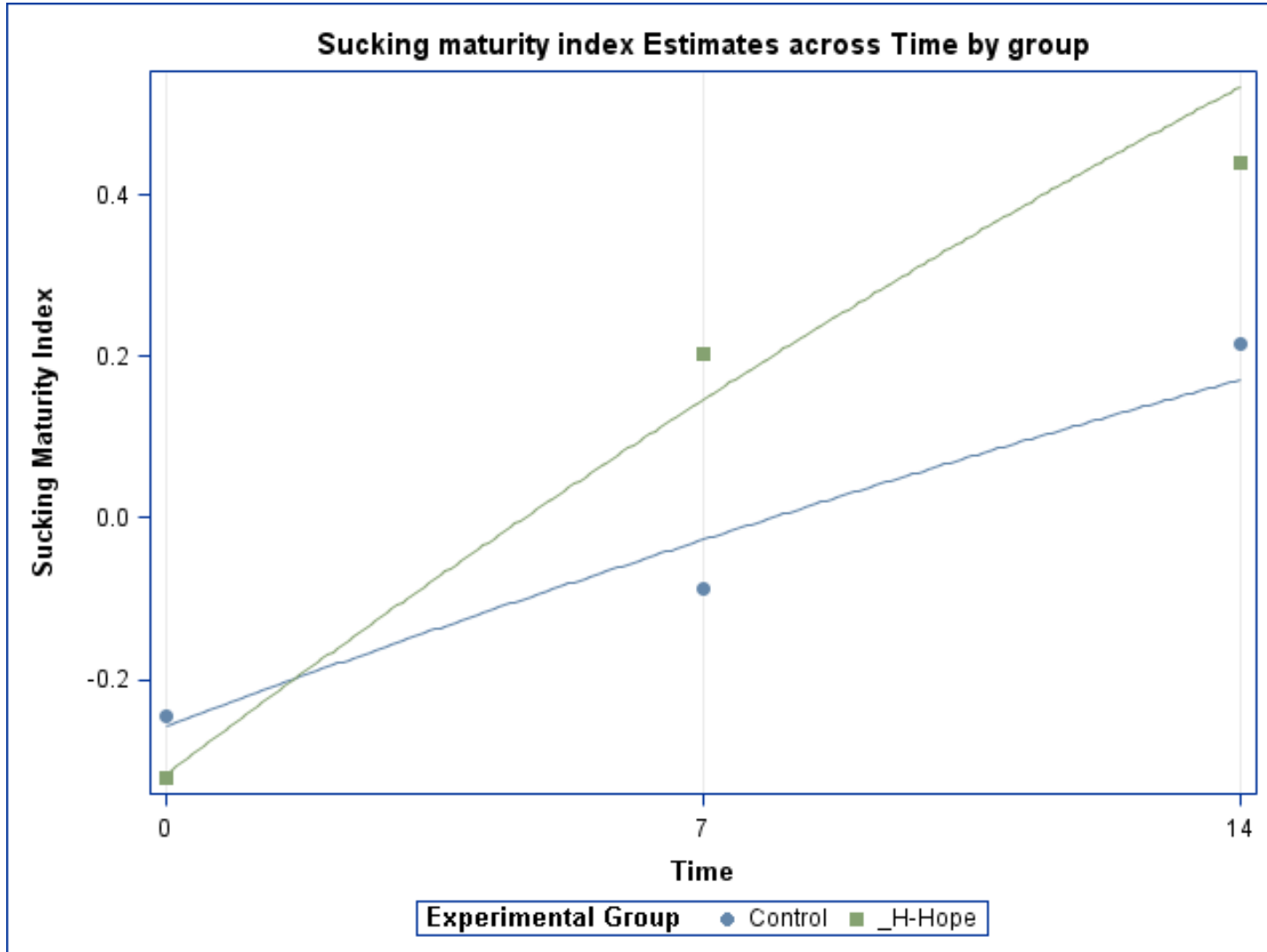
Mean Number of Sucks Per Burst



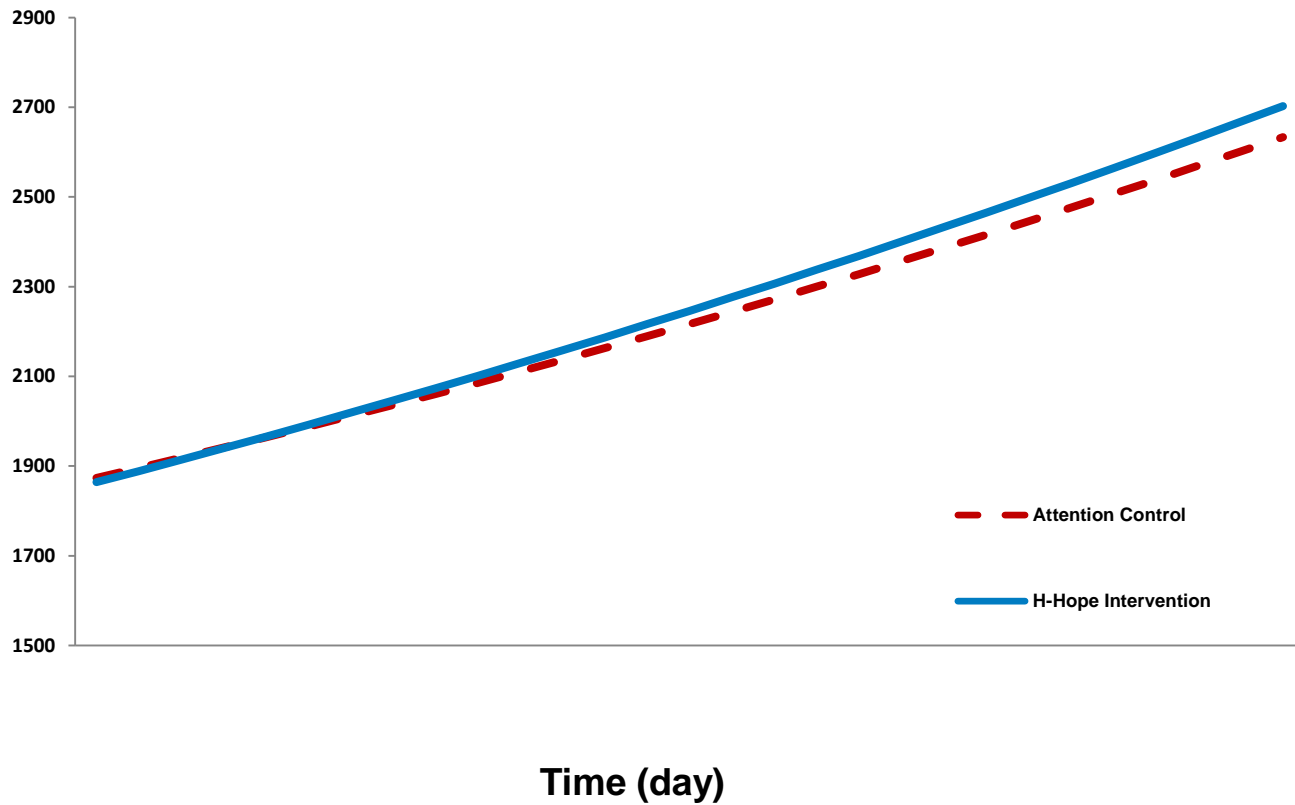
Mean Adjusted Maximum Pressure



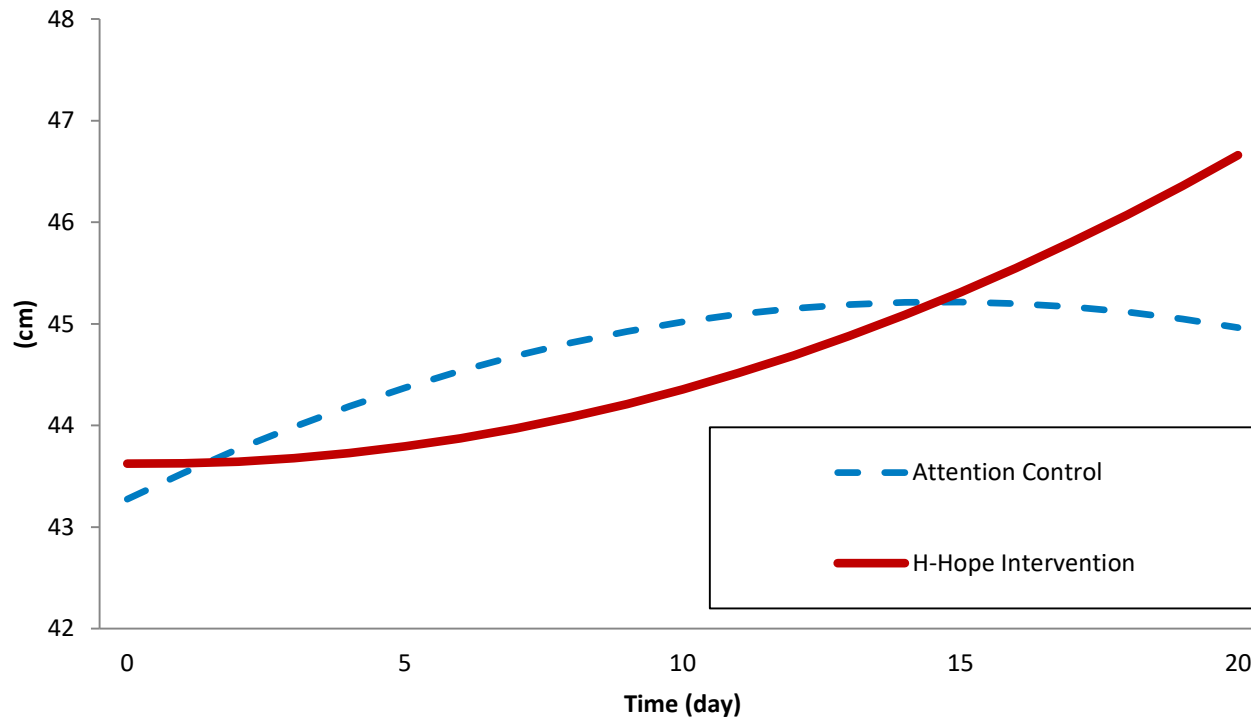
Sucking Maturity Index



Weight Gain Over Time by Group

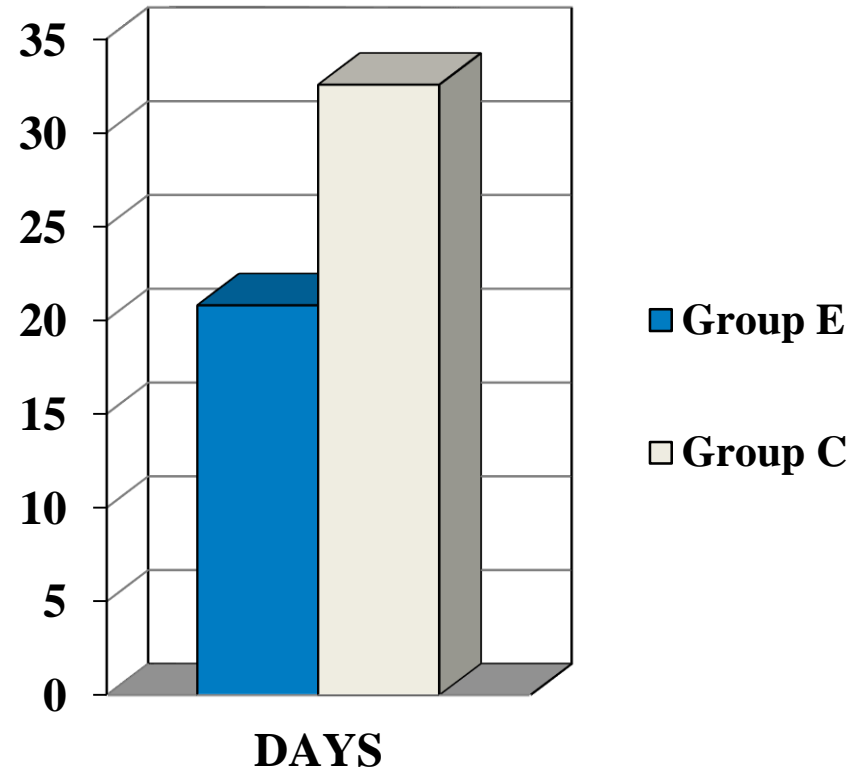


Growth in Length by Group

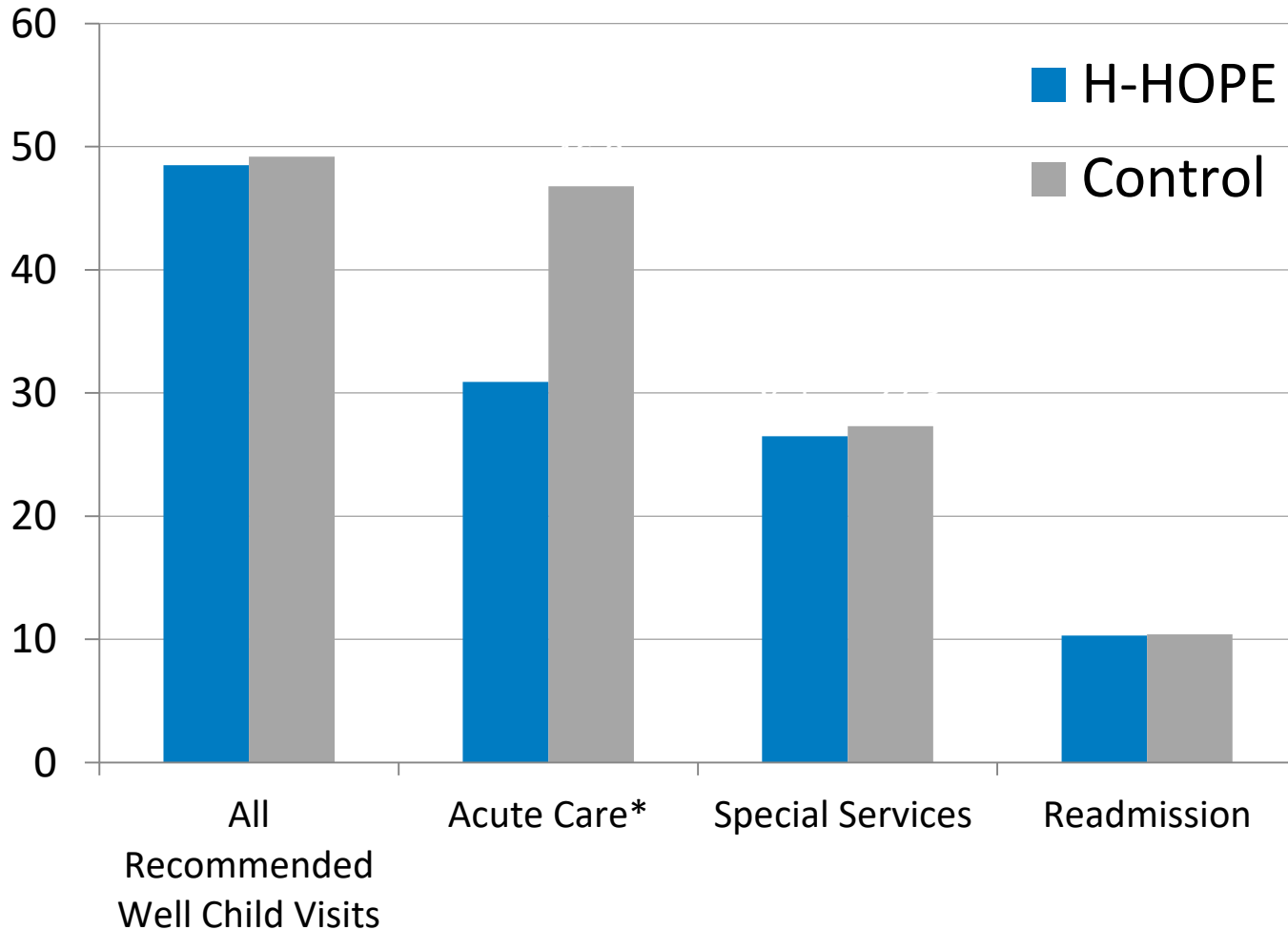


Length Of Hospital Stay

- Significantly shorter stay for Group E when compared with Group C infants ($p = 0.050$).
- Group E infants discharged ~ 2 weeks earlier than Group C infants (36.54 vs. 38.19 weeks GA; $p = 0.043$).



Percent of Infants Utilizing Health Care Visits, by Type



$p < .05$

Future Research

- **Implementation of the ATVV/H-HOPE Intervention as the Standard of Care at CHW, Nationally, and Globally**

“The study made me more aware as a mother of what my child may like or dislike and how to recognize the difference.”