

Title: Testing the Efficacy of Telephone-based Early Childhood Developmental Screening and Care Coordination through 2-1-1

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Background: Early detection of developmental and behavioral (DB) concerns is important so that children receive timely evaluations and interventions. Studies have shown that developmental screening in primary care is often lacking, and that subsequent care coordination is challenging. 2-1-1 Los Angeles (211LA) offers free telephone-based developmental screening and care coordination (DSCC) for families with young children. It is unclear whether 211LA services can enhance care quality in primary care clinics.

Objective: To test a model of telephone-based DSCC, through a partnership between 211LA and a community clinic.

Design/Methods: We are conducting a randomized controlled trial to compare telephone-based DSCC with usual care. Children ages 12-42 months who receive primary care at a partner clinic site are randomized to receive DSCC 1) by phone with 211LA plus primary care or 2) through primary care alone. We are conducting parent interviews (with validated screening tools) and 211LA and clinic medical record abstractions to measure DB concerns by parents and providers, screening rates with validated tools, and referrals to evaluations and interventions. We will conduct follow-up interviews with parents at 6 months post-enrollment, and quarterly record reviews for 12 months. Intention-to-treat analyses include logistic regression to test differences in primary outcomes (concerns noted, screening done, referral made), with group assignment as the primary predictor.

Results: To date, we have enrolled 120 families in the study and have completed baseline data collection for 87 children (46 in the intervention group and 41 in the control group). Average child age is 25.4 months, and 93% identify as Latino or Hispanic. Based on validated screening tools administered at recruitment, 40% of all children have high or moderate DB risk. Primary care clinicians asked 87% of all children in the study about developmental milestones, but noted concerns in the medical record for only 12%. Meanwhile, use of validated screening tools by either 211LA or primary care clinicians was dramatically higher in the 211LA group (78% vs. 0%), as were referrals for evaluation or intervention (33% vs. 2%, $p=0.005$).

Conclusions: Although results are preliminary and recruitment is ongoing, DSCC through 211 may provide important improvements over usual care in terms of identifying DB concerns and linking families to services.

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Research Objective: Early detection of developmental and behavioral concerns, with timely referrals to evaluation and intervention services, are crucial primary care child health services. Studies have shown that developmental screening is often lacking in primary care, and care coordination is challenging for many clinical providers. We sought to test a model of telephone-based early childhood developmental screening and care coordination, through a partnership between 2-1-1 Los Angeles (211LA) and a local federally-qualified health center (FQHC), to investigate whether 211LA can enhance quality of primary care child health services.

Study Design: We are conducting a randomized, controlled trial, enrolling families of children ages 12-42 months old, who receive well-child care at the partner FQHC. Participants randomized to the intervention group receive developmental screening, referrals and care coordination over the phone through 211LA, in addition to primary care, while the control group receives primary care as usual. We are conducting parent interviews (with validated screening tools) and 211LA and clinic medical record abstractions to measure developmental and behavioral concerns by parents and providers, screening rates with validated tools, and referrals to evaluations and interventions. We will conduct follow-up interviews with parents at 6 months post-enrollment, and quarterly record reviews for 12 months. Intention-to-treat analyses include logistic regression to test differences in primary outcomes (concerns noted, screening done, referral made), with group assignment as the primary predictor.

Population Studied: To date, we have enrolled 115 participants, with 59 assigned to the intervention group and 56 assigned to the control group. Families are predominantly low-income, Latino (95%), and Spanish-speaking (63%). Average child age is 24.6 months.

Principal Findings: Based on validated screening tools administered at recruitment, 36% of all children have high or moderate developmental risk. Primary care clinicians asked 88% of all children in the study about developmental milestones, but noted concerns in the medical record for only 10%. Meanwhile, use of validated screening tools by either 211LA or primary care clinicians was dramatically higher in the 211LA group (78% vs. 0%), as were referrals for evaluation or intervention (28% vs. 2%, $p=0.004$). Although we are still collecting feedback from service agencies, 64% of referred and evaluated children have been deemed eligible for services thus far.

Conclusions: Although results are preliminary and recruitment is ongoing, developmental screening and care coordination through 211 may provide important improvements over usual care in terms of identifying developmental and behavioral concerns, and linking families to services.

Implications for Policy or Practice: A telephone resource line such as 211 could be utilized as a central community utility for developmental screening and care coordination, improving the quality of primary care services for children and families. Future studies and policies could be implemented to test and disseminate this model more widely.

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