

# STRONG CHILDREN'S RESEARCH CENTER

## Summer 2016 Research Scholar

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### ABSTRACT

Title:

*Autism Spectrum Disorder Symptoms Stability and Social Communication Questionnaire Validity in Children Born Preterm*

Background:

Autism Spectrum Disorder (ASD) is characterized by persistent, early onset deficits in social communication and restricted or repetitive patterns of behavior, interests, or activities. Premature infants are at an increased risk for neurodevelopmental conditions including, ASD, language disorders, and behavioral problems. One common screening tool is the Social Communication Questionnaire (SCQ), which is a widely used caregiver response form recommended for children older than 4 years of age with a mental age above 2 years.

Objective:

Our study seeks to examine the stability of ASD symptoms in a population born preterm over time, and examine the utility of the SCQ as a screening tool at 3 years of age in premature infants.

Methods:

91 preterm infants who were seen at the Neonatal Intensive Care Unit at Strong Memorial Hospital in Rochester, NY and who participated in premature follow up studies were selected from February 2006 through October 2011 for enrollment in the study. They were administered the SCQ and Modified Checklist for Autism in Toddlers at 3 years of age. Between 4-9 years of age, the same participants were administered the SCQ and a variety of other ASD screening tools.

Results:

To improve sensitivity of the SCQ findings, a score of 12 or higher (out of 40) was used to indicate atypical results. Participants scored higher at 3 years than from 4-9 years (Mean 7.60 vs 5.69 respectively;  $P < .001$ ). Spearman's correlation between the sets of scores showed  $R = .46$  ( $P < .001$ ). A comparison using a McNemar Test demonstrated no difference between those who were screened at 3 years and those who were screened at over 4 years ( $P = .359$ ). The positive and negative predictive values were .29 and .91 respectively.

Conclusion:

While the children scored higher at 3 years of age, our findings suggest that early SCQ scores are stable in preterm infants at 3 and 4+ ages.

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