

Abstract

Alcohol use during pregnancy is common and its consequences often result in a broad range of negative, lifelong developmental outcomes. This study describes the effects of prenatal alcohol exposure and interacting socio-demographic factors on early childhood development. One hundred and twenty one children from the Northern Cape, South Africa, were clinically examined using standard diagnostic procedures and assessed using the Griffiths Mental Development Scales (GMDS/ER) at 7-12 months (Time 1) and 5 years of age (Time 2). Participants were assigned to either: a Fetal Alcohol Syndrome (FAS/Partial Fetal Alcohol Syndrome (PFAS)); a Prenatal Alcohol Exposed (PAE); or a Control group based on the diagnosis at 5 years. Mothers/caregivers were interviewed to ascertain socio-demographic information, including prenatal alcohol exposure. During infancy, the FAS/PFAS group showed significantly lower gross motor and language abilities, with delays in higher-order executive functioning becoming more apparent with age. No significant differences were noted during infancy between the PAE and Control groups over any developmental subscales. However, with age, higher-order executive function delays were reported in the PAE group. Performance on the infant and child versions of the GMDS was not significantly correlated, suggesting that the tests may be measuring different developmental constructs. Lower maternal education, unemployment and later recognition of pregnancy were associated with reduced social adaptive functioning, and language and eye hand coordination abilities, irrespective of amount of prenatal alcohol exposure over both time points. Larger anthropometric birth measurements and longer duration of

breastfeeding were significantly related to increased performance on the GMDS at 5 years within the groups exposed to prenatal alcohol. Socio-demographic variables are likely to complicate developmental profiles for all three groups, with prenatal and postnatal nutrition emerging as possible protective factors for positive developmental outcomes at 5 years of age.

Keywords: Fetal Alcohol Syndrome (FAS), Developmental Delay, Longitudinal, Socio-demographic factors