



Title: Early CGM use and mealtime behavior in parents of young children recently diagnosed with type 1 diabetes (T1D)

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Introduction: Research describing the developmental trajectories of disordered eating behaviors (DEB) in early childhood and shortly after T1D diagnosis is rare and could inform efforts to prevent maladaptive eating behaviors later in life. Family/child demographics have been associated with differences in parent mealtime behaviors, which may be early precursors of DEB. We sought to compare clinical and demographic factors in parent mealtime behaviors within two months post-diagnosis, with non-white mothers of girl CGM-nonusers hypothesized to report the highest frequency and perceptions of problem mealtime behaviors.

Methods: Participants were 157 parents of young children (age 1-6) newly diagnosed with T1D, enrolled in a behavioral RCT. At baseline, parents' mealtime behavior was measured using the Behavioral Pediatric Feeding Assessment Scale (BPFAS) Parent Frequency and Problem scales. Clinical/demographic variables included parent/child sex, parent race/ethnicity, and continuous glucose monitor (CGM) use. T-tests were conducted to determine differences in scores across clinical/demographic variables.

Results: Problem parent mealtime behaviors were moderately frequent ($m=18.84$, $SD=4.95$) and highly problematic ($m=1.26$, $SD=2.16$). There was a significant difference in problem mealtime behaviors between parents using CGM (19%) and not using CGM (81%): BPFAS-Parent Frequency scores ($t(153)=-2.61$, $p=.01$) and BPFAS-Parent Problem scores ($t(153)=-2.65$, $p<.05$) were higher in CGM-users (Frequency: $m=21.05$, $SD=5.28$; Problem: $m=2.36$, $SD=2.52$) than nonusers (Frequency: $m=18.45$, $SD=4.80$; Problem: $m=1.05$, $SD=2.00$). BPFAS scores did not differ across other clinical/demographic variables.

Conclusions: Shortly following T1D diagnosis, many parents struggle with their parenting behaviors at mealtimes. Contrary to hypotheses, CGM-users reported the most problem mealtime behaviors, suggesting some aspects of using CGM may increase mealtime stress, or parents who are struggling more may seek technologies like CGM sooner post-diagnosis. Future research on characteristics of families with more mealtime-related difficulties early in life and early post-diagnosis may reveal important precursors of later eating behaviors.