

The importance of diabetes distress and patient retention in glycemic control of patients with Type 1 Diabetes transitioning from pediatric to adult care

Amith Rao¹, Kathryn Rodeman², Anna Konigsberg², Jennifer Iyengar², Scott Soleimanpour²

¹Northeast Ohio Medical University, Rootstown, Ohio

²Michigan Medicine University of Michigan, Ann Arbor, Michigan

The transition from pediatric to adult care in patients with type 1 diabetes (T1D) is fraught with challenges leading to poor glycemic control and diabetes-related microvascular complications. An underappreciated challenge in all patients with diabetes is diabetes distress, which refers to the emotional/mental burden associated with living with diabetes. Previous studies have shown that increased diabetes distress correlates with poor glycemic control, but the role of diabetes distress in the transition to adult care is unknown. We hypothesize that glycemic control in transition patients is influenced by a combination of both diabetes distress and patient retention in the adult transition clinic during the transition period. To test this hypothesis, we performed a prospective assessment of patients entering the UM Diabetes Transition Program in the first year following the transition from pediatric to adult care (n=87). We determined diabetes distress using the validated Problem Areas In Diabetes (PAID) survey at the time of transition, and followed the frequency of adult endocrinology visits in the first year and HbA1c concentrations in the pre-transition, at transition, and post-transition period. We observed a slight decline in HbA1c levels after each endocrinologist visit for patients who attended at least 3 visits within the first year (n=71). We also observed that patients with severe distress (PAID>40, n=8) tended to have higher pre-transition and transition HbA1c levels than those with moderate (PAID 20-40, n=12) or low distress (PAID<20, n=37). Patients with moderate distress, however, showed a significantly lower retention rate ($p<0.01$) and higher post-transition HbA1c than those with severe and low diabetes distress. Importantly, patients who saw their adult endocrinologist at least 2 times in the year after transition had a significantly lower pre-transition ($P<0.02$) and transition HbA1c ($P<0.002$). Patients who saw their adult endocrinologist >3 times in the year after transition also showed a significant decrease in post-transition A1c ($P<0.05$). These data suggest that diabetes distress and patient retention are significant factors in glycemic control of transition patients. The findings presented have implications towards potential improvement of the existing standard of care regarding T1D patients transitioning from pediatric to adult care.