Self-Management Interventions for Youth with Type 1 Diabetes:
A Systematic Review of the Literature

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ABSTRACT

This review analyzes the available literature on interventions that have been conducted to help children and adolescents with type 1 diabetes mellitus to better self-manage their disease. We searched the available literature in online databases (PubMed, CIHNAI, and MEDLINE) using specific search terms and selected studies according to inclusion and exclusion criteria. Twenty-seven articles, representing 2,874 study participants, were included spanning 2009-2014. A1C was the primary outcome measure of interest, but we also explored other key outcomes, such as perceived quality of life and adherence that positively influence the self-management of diabetes. Unfortunately, many interventions did not lead to clinically or statistically significant reductions in A1C. The exceptions were two psychoeducational interventions with mean A1C decreases of 3.45%-age points (Oduwole et al., 2011) and 2.51%-age points (Stanger et al., 2013) and one technology-based intervention with a mean A1C decrease of 1.2%-age point (Lewis, 2013). While the findings of these studies were slightly discouraging, more follow-up studies need to be conducted on positive reinforcement, home visits and continuous glucose monitoring to enhance glycemic control of type 1 diabetes mellitus in children and adolescents.