

Early Diagnosis of Childhood Overweight and Anticipatory Guidance by Primary Care Providers

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Problem: Early diagnosis of childhood overweight and anticipatory guidance by primary care providers are important steps to prevent the development of childhood overweight.

Evidence: Most providers do not systematically screen overweight children, or provide routine obesity prevention counseling (6, 7). To facilitate such a process, a systems change is needed to ensure the use of appropriate growth charts (8) and to provide anticipatory health guidance focused on obesity prevention (9, 10).

Strategy: Guided by Bronfenbrenner's (1986) ecological theory and Roger's (1962) Diffusion of Innovation, and using a pre-test, post-test experimental design, a pediatric practice-based intervention to increase: use of Body Mass Index (BMI), recognition of early childhood overweight, and obesity prevention counseling was developed, implemented, and evaluated.

Practice Change: Charts of children (15-20/provider), 2 - 5 years, presenting for preventive care (V20.2) at intervention (INT), or control (CON) practices in rural Upstate New York were randomly reviewed at baseline (03/2002 - 03/2003) (INT, N=147, CON N=213) and follow-up (06/2004-09/2004) (INT N=111, CON=150).

Intervention nurses and providers attended facilitated childhood overweight awareness sessions, and, education on BMI.

INT vs. CON groups were compared using: Student t-tests, Chi square, Mantel Haenszel X² (nominal variables); Mantel Haenszel test (rank ordered variables); ANOVA, Rate difference test for independent proportions (1-sided p-value) (change over time).

Results: There was a greater change in BMI plotting for the 4 or 5-year-old's, intervention group ($z=1.67$, $p=0.047$, 1-sided test) and overweight/at-risk for overweight 4 or 5-year-old's ($p=0.047$, 1-sided test).

Among 4 or 5-year-old's, intervention providers significantly counseled more about physical activity (19% vs. 3%, respectively, $p=0.0014$). Intervention providers significantly counseled more parents of overweight vs. non-overweight children regarding diet/nutrition ($p=0.02$) and activity ($p=0.05$).

Recommendations: Education of nurses to implement BMI screening can facilitate earlier identification of childhood overweight. Providers need to incorporate obesity prevention counseling into each well child visit.

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