COMMUNITY GUIDE SYSTEMATIC REVIEW: BEHAVIORAL INTERVENTIONS THAT AIM TO REDUCE RECREATIONAL SEDENTARY SCREEN TIME

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Abstract (limited to 350 words)

PURPOSE: Childhood obesity is a serious public health concern. Increased screen time has been associated with higher weight status during childhood. This systematic review evaluated the evidence on effectiveness of behavioral interventions that aim to reduce recreational sedentary screen time.

METHODS: A systematic search was conducted for studies published from 1966 to 2013 that examined the effectiveness of behavioral screen time interventions. Systematic review methods developed for the Community Guide were used to identify and abstract qualifying studies. Evidence was evaluated using select measures for screen time, physical activity, diet and weight outcomes. Measures included, but were not limited to, composite screen time (a measure that includes daily TV viewing plus another form of screen time such as video games or computer use); body mass index (BMI); obesity prevalence; accelerometer counts of physical activity; and total energy intake. Researchers calculated medians and interquartile intervals (IQI) for each outcome.

RESULTS: Forty-nine (49) studies qualified for inclusion. Behavioral screen time interventions were effective in reducing composite screen time (-26.4 min/day, IQI: -72.0, -9.0) (34 study arms); BMI (-0.09 kg/m², IQI: -0.44, -0.04) (16 study arms); childhood obesity prevalence (-2.0 percentage points, IQI: -2.3, -1.1) (11 study arms); total energy intake (-121.0 kcal/day, IQI: -268.0, 0.6) (six study arms); and increasing accelerometer counts (105.1 counts/day, IQI: 56.5, 129.5) (eight study arms). Several studies examined the effectiveness of behavioral screen time interventions on health disparities and found improved weight-related outcomes in low-income populations compared to high-income populations.

CONCLUSION: Behavioral interventions aimed at reducing recreational sedentary screen time in children lead to reductions in screen time, improved weight-related outcomes, increased physical activity and improved diet. In addition, these interventions are associated with reduced obesity prevalence and reduced SES disparities in weight status.