

Parent Participation Contributes to Success of Youth Weight-Related Health Interventions

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Children and Adolescents, Weight-Related Health

- Rates of Overweight¹:
 - Children aged 2 to 5 years – **10.1%**
 - Children aged 6 to 11 years – **19.6%**
 - Adolescents aged 12 to 19 years – **14.5%**
- *Lasting* Health Risks^{2,3}:
 - Chronic Disease
 - Mental Health Problems
 - Social Consequences
 - Disability
- Related Costs^{4,5}:
 - Increased Healthcare Costs
 - Decreased Productivity
 - Reduced Quality of Life
 - Premature Mortality

Recent Findings

- Changes in parents' dietary and physical activity behaviors predict changes in their children's dietary and physical activity behaviors.⁶⁻¹⁰
- Parents model behaviors and control the availability of foods and activities.^{7-9,11,12}

Purpose of Current Study

- Review a comprehensive collection of studies of children's weight-related health interventions.
- Meta-analyze related data.
 - ❖ According to the *PRISMA Statement*⁸

Methodology

- Reports of Interventions: Jan 2004 – Dec 2010
- Experimental Randomized Controlled Studies
- Participant Ages: 2-19 years
- Broad Behavioral Habits Targeted
- Pre- and Post-BMI measure

Literature Review: Intervention Characteristics

- Reports of 42 interventions included in review.
 - Dietary interventions
 - Physical activity interventions
 - Behavioral interventions
 - Individual, group, family therapies
 - Peer influence
 - Incentive activities
 - Combinations of activities

Literature Review: Intervention Characteristics

- Treatment, Preventive
- School, Healthcare, Community Based
- Age ranges
- Required, Optional, and No Parent Participation
- Varying Durations

Meta-Analysis

- Study weights
- Effect sizes (Cohen's d) of the pre-post change in BMI for each group examined
- **Levels of Parental Involvement**
 - Required parent participation ($N = 23$)
 - Optional parent participation ($N = 9$)
 - No parent participation ($N = 10$)
- **Intervention Durations**

Initial Results: Parental Involvement

- **Required** parental involvement had greater success than **No** parental involvement ($p=.027$)
- **Optional** parental involvement not significantly different from **Required** parental involvement ($p=.149$) or **No** parental involvement ($p=.963$)

Results:

Parental Involvement

- Secondary analysis:
Data of interventions with **Optional** and with **No** parental involvement were combined.
- Interventions that **Required** parent participation had significantly greater success rates than interventions with **Optional** or **No** parent participation, $t(28.2)=2.57, p=.016$.

Results:

Intervention Durations

- The linear combination of **intervention duration** and **parent participation** significantly predicted pre-/post-BMI effect size differences, $R^2 = .26$, $F(2,39) = 8.04$, $p = .001$.
- Parent participation a positive predictor, $p = .001$
- Intervention duration a positive predictor, $p = .006$

Application of Results

- **Parental involvement** in children's weight-related health interventions contributes to success rates, even when controlling for intervention duration.
- **Intervention duration**, along with parent participation, contributes independently to success rates.

What about parents?

- Parents generally *want* to do what is good for their children when attempting to shape their children's health habits.
- Some parents simply do not understand relationships between diet, physical activity, body weight, and health risks.
- Parental decisions are often influenced by family, culture, and media.

Applications to Practice

- Weight-related health interventions that target children and adolescents should **require parent participation** in intervention activities.
- **Intervention durations** must also be considered.

Future Research

- Interventions that target parents' weight-related health behaviors in order to promote children's healthful behaviors.
 - Mechanisms by which parents contribute to their children's weight-related behaviors.
- Optimal intervention durations and intensities among specific age groups.

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Look for the related research
manuscript in *Preventive Medicine*.