ABSTRACT

Identifying Influences on Physical Activity in Low-income Overweight Children 7-13 Years: A Secondary Analysis

Sarah Fernandez, Undergraduate Nursing Honors Student
Diane O. Tyler PhD, RN, FNP-BC, FAAN, Faculty Sponsor
The University of Texas at Austin School of Nursing

Background: Parents are an integral part in establishing healthy routines for their children. Interventions that work solely with parents have been met with greater success with promoting healthy lifestyle changes than approaches that target children alone (Howard, 2007). Establishing healthy routines in children fosters lifelong healthy practices (Foundations, 2010). Furthermore, theory-based interventions are found to be more effective than non-theoretically based approaches.

Purposes:
1. Explore two theories useful for intervening with families to promote healthy behaviors.
2. Conduct a secondary analysis of data collected for a longitudinal study to identify theory-based factors (gender, age, knowledge, and goals) that may influence children’s physical activity and health promotion.

Methods
• Literature review: Transtheoretical Model (TTM) integrates cognitive, behavioral and temporal aspects of change into one collective approach (Prochaska & DiClemente, 1992; Nigg et al., 2011; Pender, 1996) and Gollwitzer’s volitional method involves developing succinct strategies to achieve a goal (Dieferndorff & Lord, 2003).
• A secondary analysis of the study entitled “Primary Care of Families with Overweight Children,” which was originally conducted at two-nurse managed school-based health clinical. In the primary study advanced practice nurses counseled parent-child dyads to help families improve the health of their overweight children. A total of 73 children between the ages of 7 and 13 years with a BMI ≥ 95 percentile participated in the study.
• Procedures for this secondary analysis included reviewing the records of the baseline data to identity types of goals (Action-Based, Reason-Based, or Both) that parents and children identified regarding physical activity. The goals were graded as Action-Based, Reason-Based, or Both as [cited by the Gollwitzer’s volitional method]. Type and average number of activities per week were analyzed. Average duration of activity per week was not a primary indicator of physical activity related to the variable nature of reports by parents and children. Child health behavior knowledge scale to rate the physical activity knowledge.

Results
• Type and number of activities.
  o Child participants reported 24 types of preferred physical activity.
  o Soccer, basketball, and football were most frequently reported.
  o Older children prefer seasonal and more structured activity.
  o Younger children are involved in consistent, less exerting physical activity.
• Categories of goals
  o 83 types of health goals were articulated by parents for their children
ABSTRACT

- 61% of parents articulated broad health-desires such as ‘be healthy’ or ‘lose weight’ while only 35% provided more specific goals such as ‘normal cholesterol,’ or ‘ride bike’.
- 23.3% of goals were Action-Based. 26% were Reason-Based and 51% were Both.
- Majority of parents cited weight loss or exercise as primary health wishes for their children.

- CBKS
  - Mean CBKS score was 6.4 ± 2.1 (range 0-9).
  - No association between knowledge and physical activity.

- No significant relationships were found between personal characteristics (e.g., age, gender, BMI) and physical activity.

Conclusions

The findings from this secondary analysis are consistent with the theoretical models identified in the literature review. From a transtheoretical model standpoint, parents who were unable to identify risks associated with overweight or obesity were not ready for change. Almost all parents could list reasons for change, but most parents could not draw the line between a want for change and actions that meet change. This finding is consistent with the review of the volitional model. The basis of the volitional model is an ability to list off specific actions to reach a goal.

Nurses are on the forefront of helping patients translate their health desires into actual behavior change. Future interventions should not only include opportunities to develop practical methods to achieve goals but evaluation of parental perceptions of health and personal barriers to change. Such interventions should reinforce a partnership rather than an expert-recipient relationship (Emmons & Rollnick, 2001).