Children's Hospital of Philadelphia
PolicyLab

Shaping Parental Choices During Renourishment of a Child With Restrictive Eating Using an Interactive Grocery Store

Statement of Problem

Anorexia nervosa is a serious brain-based illness with typical onset in adolescence. A hallmark of the illness is weight below what is normal for that person's sex, height and developmental trajectory. Research indicates that early and rapid weight gain in treatment for anorexia is key for increased possibility of remission, making the renourishment stage crucial to this process.

There is currently only one evidence-based treatment for anorexia in adolescents: Family Based Treatment (FBT). The first phase of FBT focuses on parents leading the renourishment process at home to promote weight gain in the adolescent. Adolescents recovering from anorexia are hypermetabolic (i.e., their metabolism speeds up) and need enough nutrition to repair and restore their body. On average, adolescents need at least 3,600 calories a day–some adolescents need closer to or even over 5,000 calories a day. Parents have reported feeling overwhelmed by grocery shopping to meet the nutritional needs for their child because it is unlike anything they have ever done before. There is no current electronic aid to support parents in shifting their approach to grocery shopping.

Description

Open Science Open Grocery (OSOG) is a free and accessible mock online grocery store that can be modified to enhance nutritional education that is currently provided to parents during their child's hospital stay. From the participants' point of view, OSOG looks like any other online grocery store—it contains over 10,000 products from American grocery stores including produce, meats, frozen items and non-perishables. Each item has a price, description and nutritional information, all of which are visible to participants. On the research side, we are able to assess a user's cart activity, interaction with nutritional labels, total shopping time and the macronutrient content of food "purchased." In this feasibility and acceptability study, our team will modify OSOG to be used in the context of eating disorder treatment to help facilitate a rapid shift in parents' decision making around food, which we hope will lead to rapid weight gain in their child.

We asked Parent Research Partners (PRPs) who have all had a child recover from anorexia to review OSOG with a study coordinator to share their impressions. Based on feedback from PRPs, we are adding multiple features to the OSOG app, including caloric density scale for each product, pop-ups to suggest calorically dense pairings to products, and new food additions that have been found to be helpful during renourishment.

In the pilot phase of this study, we recruited parents who currently have a child with anorexia who is hospitalized at CHOP and on the Nutritional Rehabilitation Pathway. All parents were given the modified OSOG after nutritional teaching in the hospital. We followed parents for 4 weeks and collected psychosocial and behavioral measures as well as the child's height and weight to determine rate of weight gain.

Next Steps

By exploring the use of OSOG as an online shopping tool for parents during renourishment, we hope to support parents during the early phases of treatment and determine how best to implement the modified OSOG into our nutritional teachings in the hospital to ease the transition from inpatient to outpatient care. Data from this project will inform a number of mHealth supports for families early in the treatment of anorexia nervosa.

This project page was last updated in February 2022.

Suggested Citation

Children's Hospital of Philadelphia, PolicyLab. *Shaping Parental Choices During Renourishment of a Child With Restrictive Eating Using an Interactive Grocery Store* [online]. Available at: http://www.policylab.chop.edu. [Accessed: plug in date accessed here].

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