

---

Grace Peterson Nursing Research Colloquium

2017

---

Aug 18th, 10:00 AM - 11:30 AM

## **Factors Contributing to Weight-Gain in Pediatric Psychiatric Patients: An Integrative Literature Review**

Holly Ann Douglas Charles  
hdcharlesdesign@gmail.com

Follow this and additional works at: <https://via.library.depaul.edu/nursing-colloquium>



Part of the [Nursing Commons](#), and the [Social and Behavioral Sciences Commons](#)

---

Charles, Holly Ann Douglas, "Factors Contributing to Weight-Gain in Pediatric Psychiatric Patients: An Integrative Literature Review" (2017). *Grace Peterson Nursing Research Colloquium*. 54.  
[https://via.library.depaul.edu/nursing-colloquium/2017/Summer\\_2017/54](https://via.library.depaul.edu/nursing-colloquium/2017/Summer_2017/54)

This Event is brought to you for free and open access by the School of Nursing at Via Sapientiae. It has been accepted for inclusion in Grace Peterson Nursing Research Colloquium by an authorized administrator of Via Sapientiae. For more information, please contact [digitalservices@depaul.edu](mailto:digitalservices@depaul.edu).

# Factors Contributing to Weight-Gain in Pediatric Psychiatric Patients

Larry J. Maturin Jr. MSN, APN, ACNS-BC, CEN, CCRN; Holly Douglas Charles, MS, RN

## BACKGROUND & SIGNIFICANCE



### ONE OUT OF THREE

CHILDREN IN THE UNITED STATES IS OVERWEIGHT OR OBESE<sup>1</sup>

Young psychiatric patients are more likely to be overweight or obese<sup>2,3,4</sup>. Weight gain during in-patient treatment often results in long-term increases in weight resulting in a shorter life expectancy, type-2 diabetes, cardiovascular disease, hypertension, cancer and metabolic syndrome<sup>5,6</sup>.

## PURPOSE

The aim of the integrative literature review is to identify factors contributing to weight gain in young psychiatric patients, especially during hospitalization, and to find effective interventions that promote healthy weight achievement.

## RESEARCH QUESTIONS

1. What factors lead to weight gain in pediatric psychiatric patients?
2. Can any of these factors be modified to mitigate weight gain? If so, how?
3. Which interventions are the most effective in controlling weight gain in youths with severe mental illness?

## METHODOLOGY

### RESEARCH TYPE:

Integrative Literature Review

### DATABASES SEARCHED:

AccessMedicine, CINAHL, MedLine, ProQuest, PsycInfo, PubMed

### SEARCH TERMS:

*weight gain* and *pediatric psychiatric*

### SUBJECT:

*inpatient and children & youth*

### LIMITATIONS:

published between 2007 and 2017; linked full text; peer reviewed; English

### CONCEPTUAL FRAMEWORK:

Life Course Health Development Model<sup>24</sup>

## RESULTS

**21**  
STUDIES  
FOUND

**STUDY TYPES:** quality improvement projects, naturalistic longitudinal studies, historical perspective studies, literature reviews, Pharmacogenomics association studies, research trials, cross-sectional studies, retrospective data analysis, placebo controlled trials, non-randomized cohort studies, retrospective chart reviews, and naturalistic prospective cohort studies

## DISCUSSION

### CONTRIBUTING FACTORS

**Pharmacological Treatment:** Antidepressants and second-generation anti-psychotics (SGAs), particularly olanzapine<sup>7,8</sup>. Anti-psychotic naïve patients and males treated with SGAs<sup>9,10</sup>.

**Psychiatric Diagnosis:** Any psychiatric diagnosis<sup>4,11,12</sup>. Depression, especially in girls<sup>13,14</sup>. Attention deficit hyperactivity disorder (ADHD)<sup>13</sup>.

**Environment & Lifestyle** Medicaid insurance, smoking, treatment with stimulants, antidepressants, and antipsychotics<sup>4</sup>. Occurs more among non-Hispanic black and Hispanic children<sup>4</sup>. Hospitalization, especially in males and those with normal weight at admission<sup>15,16</sup>.

### MANAGEMENT & PREVENTION

**Pharmacological:** Discontinue treatment or switch to medication associated with less weight gain<sup>17,18</sup>. Anti-obesity agents orlistat and sibutramine<sup>17</sup>. Metformin, Vitamin D, and actinobacteria in the future<sup>19,20,18</sup>. Pair with diet and lifestyle modifications for best results<sup>17</sup>.

**Pharmacogenomics:** Developing research indicates personalized treatment centered around melanocortin 4 receptors, leptin, and cannabinoid-1 receptors may be viable in the future<sup>21,22</sup>.

**Non-pharmacological:** Cognitive behavioral therapy and/or educational interventions focused on diet, activity, stress management and motivation<sup>17,1,23</sup>.

## CONCLUSION



Weight-gain during psychiatric hospitalization occurs as a result of pharmacological treatment, psychiatric diagnosis, and in conjunction with certain lifestyle and environmental factors.

Males and those with normal weight upon admission are particularly vulnerable to weight gain during treatment in a psychiatric facility.

Management of weight could be achieved by pairing cognitive-behavioral therapy with educational sessions on diet, activity, motivation, and stress management.

Psychiatric institutions can facilitate weight control by providing healthy, kid-friendly menu options combined with educational interventions, especially those aimed at portion control.

## NURSING IMPLICATIONS

Partner with patient in identification, prevention, and management of inappropriate weight gain.

Identify risk factors such as prescribed medications, type of insurance, and past weight and height assessments.

Advocate for consideration of an alternative treatment regime to minimize risks and enhance benefits.

Educate patients and families.

Design and implement programs aimed at preventing or reversing inappropriate weight gain.

