



Overweight and Obesity in U.S. College Freshmen: An Integrative Review

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Background

- ❑ First year of college signifies a vulnerable time, marked as a period of decreased physical activity, poor diet quality and high rates of unhealthy weight-control behaviors.
- ❑ The literature reveals a typical weight gain is about 5 pounds during the freshman year.
- ❑ Although college weight gain may be viewed as a minimally significant, the associated risks can be significant and have great impact on later adulthood.
- ❑ This weight gain has implications for future health problems such as non-communicable chronic diet related diseases, bullying, & depression.
- ❑ One of the largest causes for concern is the association between obesity and increased health risks which translates into increased medical care and disability costs.
- ❑ Direct medical costs
- ❑ Indirect medical costs
- ❑ It is important to understand the influences that college life has on the overweight and obesity trends.

Aim/Objective

- ❑ The purpose of this integrative review:
 - To analyze and synthesis previously published research investigating overweight and obesity in U. S. college freshman.
 - Literature analysis for each individual study related to Aim, Theoretical or Conceptual Framework, Design Sample, Methodology, Significant findings, Implications and recommendations for future research an APRN practice.
 - Examine the health behaviors that influence weight gain in college freshman.
 - Aid healthcare practitioners to better understand this high-risk period of weight gain and devise interventions/strategies aimed specifically at this population.
 - Serve as the basis for the development of a clinical practice guideline for APRNs and health care professionals who work with college students.

Methodology

- ❑ Data Collection /literature search:
 - During the fall of 2012, a comprehensive computer based literature search was conducted (CINAHL, Health Source Nursing, and PubMed).
 - Key terms : overweight, obesity, and college freshman.
 - Inclusion criteria:
 - (1) quantitative, qualitative, or mixed methods empirical studies;
 - (2) written in English; published in peer-reviewed journals;
 - (3) conducted in colleges/universities in the United States ;
 - (4) included subjects who were freshman or first year college students between the ages of 17-24 years;
 - (5) included male, female or both genders as subjects
 - (6) had publication dates between the years 2002 and 2012;
 - (7) specifically conducted a study related to overweight and obesity in college freshmen.
- ❑ Literature analysis for each individual study as per the aim of the Scholarly Project.
- ❑ Synthesis of literature:
 - After analysis, a synthesis of each study into statements regarding congruency and incongruency of key components listed above.

Theoretical/Conceptual Framework

Harris Cooper's Conceptual Model served as the systematic approach to help guide the methodological analysis of the integrative review as follows:

- Problem formulation
- Literature search
- Data evaluation
- Data analysis and interpretation
- Public presentation of the results

Nola Pender's Health Promotion Model (HPM) was the theoretical model that served as the underpinning for the development of the CPG as follows:

- Used to identify behaviors that influence health practices
- This information can be used to change behaviors to achieve a healthy lifestyle

Results

- ❑ 14 studies (100%) provided data on weight gain or body weight changes during the first year of college.
- ❑ Mean weight gain reported in six studies (42%) was consistent at 3.3 pounds.
- ❑ Variables of residence, leaving home, physical activity, gender, ethnicity, dietary intake, restrained eating, dieting history, RMR, disordered eating, psychological and "The Freshman 15" all impact weight change.
- ❑ Conclusions demonstrate "The Freshman 15" is a myth.
- ❑ Kasperek et al. (2008) found mean weight gain ($p < 0.001$), mean BMI increase ($p < 0.01$), means of desirable and overweight categories of BMI ($p < 0.001$).
- ❑ Hajhosseini et al. (2006) mean body weight did increase continuously over time ($p = 0.001$).
- ❑ Levitsky et al. (2006) found statistically significant differences in weight gain between control and experimental groups ($p < 0.01$).
- ❑ Statistical and clinical significance and complete reference list is provided as hard copy handout.

Practice Recommendations

- ❑ Findings from this integrative review are the impetus for the development of a CPG targeting this population.
- ❑ Interventions, practice changes, and program development to prevent weight gain are important but first the exact causes behind the changes in weight warrant further research to develop or improve intervention and prevention programs.
- ❑ Programs directed at physical activity and weight management succeeding change in residence from home to campus living are necessary.
- ❑ The potential extent of economic impact accentuates the importance of overweight and obesity in college aged youth as a focus for policy development and subject for future research.
- ❑ Prevention is key to decreasing obesity's high costs.