Social Media for Health: Utilizing Instagram to Improve Eating Habits of Overweight and Obese Adolescents

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BACKGROUND

Adolescent Health & Diet

- Health behaviors developed during adolescence often persist into adulthood (AAP, 2003; Badawy & Kuhns, 2016; De Winters et al., 2011)
- 63% consume sugar sweetened beverages (SSB) daily (Centers for Disease Control and Prevention [CDC], 2017)
- Only 0.9% meet dietary recommendations for fruit & vegetable (FV) consumption (Kimmons et al., 2009; Vereecken et al., 2015)
- Obesity results from poor dietary behaviors ➔ Chronic health conditions
  - Increased healthcare costs (American Academy of Pediatrics [AAP], 2003; Kinge & Morris, 2017; Waters et al., 2011; WHO, 2017)

Social Media Benefits

- Average social media viewing among adolescents
  - 71 min/day (Clark, Raphael, & McGuire, 2018)
- Means to promote healthy eating by exploring recipes, food pictures, and cooking videos (Holmberg, Berg, Dahlgren, Låssner, & Chaplin, 2018; Nour, Rouf, & Allman-Farinelli, 2017)
- Effective for communicating & eliciting behavior change
  - Preventive counseling (Yonker et al., 2015)
  - Decreasing risky behaviors (Yonker et al., 2015)
- Increased FV consumption in young adults (p<0.001) (Coccia, Fernandes, & Altitit, 2018; Helm & Jones, 2016)

METHODS: DNP Project

- **Setting:** Adolescent Health Clinic, Children’s Hospital of Pittsburgh of UPMC, Pittsburgh, PA
- **Sample:** Adolescents (n=30)
  - Eligibility: 1) 14-18 years of age
    2) BMI ≥85th percentile
  - Exclusion: 1) current enrollment in weight loss program
    2) active diagnosis of anorexia/ bulimia nervosa
- **Study Design:** Descriptive, mixed method
  - Focus Surveys to tailor social media intervention
  - Baseline & follow-up
- **Measures:**
  - Part 1: Focus Survey
  - Part 2: BEVQ-15; 2-item SERVINGS FVS, & Fruit & Vegetable Inventory form

PURPOSE

- Explore key factors related to the development of a targeted social media intervention
- Apply them to an Instagram based program to increase healthy dietary behaviors in adolescents.

OUTCOMES

- Increase FV and decrease SSB consumption over an 8-week period in overweight and obese adolescents aged 14 to 18 years.

HEALTH BELIEF MODEL (HBM)

- Increased Knowledge:
  - MyPlate resources (USDA, 2018): Meal budget, Meal planning, Recipes, Nutrition info, Health benefits, FV consumption
- Perceived Benefits:
  - Immediate health benefits (Helm & Jones, 2016)
  - Low cooking literacy, Cost of vegetables, Time & effort to prepare vegetables, Unpleasant taste (Nour, Rouf, & Allman-Farinelli, 2017)
- Perceived Barriers:
  - Social Media Platform: Instagram

INSTAGRAM PROGRAM: food4your_health

- **Part 1:** Program Development
  - Focus surveys via Qualtrics (n=10)
    - 12 multiple choice; 1 free response question
  - Assess preferences: frequency, timing, design, content
  - Tailor to meet major themes identified
- **Part 2:** Instagram Program (n=30)
  - Baseline data collection via Qualtrics
  - Post MyPlate content
    - Content themes:
      - Week 1: Basics on FV Consumption
      - Week 2: Incorporating FV in everyday meals
      - Week 3: Fun ways to add FV to diet
      - Week 4: Tips on purchasing FV cheap
      - Week 5: FV and health: immediate benefits
      - Week 6: Choose this: Decreasing SSB intake
      - Week 7: Healthy Snacking
      - Week 8: Recipes
  - Follow-up data collection via Qualtrics
    - After exposure to all 8 weeks of content

IMPLICATIONS

Potential benefits to clinical practice:

- Introduction of a new health promotion tool that addresses healthy diet
- Method to prevent the development of obesity and other chronic conditions, e.g., heart disease, in adolescents
- Innovative way to engage adolescents