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11-2012

# An Integrative Review of Out-Patient Teaching for Children with Attention Deficit Hyperactivity Disorder

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## Recommended Citation

Hicks, Elizabeth; Hogan, Melissa; and Parker, Kendra, "An Integrative Review of Out-Patient Teaching for Children with Attention Deficit Hyperactivity Disorder" (2012). *Pharmacy and Nursing Student Research and Evidence-Based Medicine Poster Session*. 44. [http://digitalcommons.cedarville.edu/pharmacy\\_nursing\\_poster\\_session/44](http://digitalcommons.cedarville.edu/pharmacy_nursing_poster_session/44)

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# An Integrative Review of Out-Patient Teaching for Children with Attention Deficit Hyperactivity Disorder

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## PATIENT CARE ISSUE

### Background & Significance:

- Attention deficit hyperactivity disorder
  - Most prevalent in children
  - Symptoms of inappropriate levels of hyperactivity, impulsive behavior, and lack of attention<sup>7</sup>
- 3-9% of children suffer from the symptoms of ADHD<sup>3</sup>
- Treatments of ADHD
  - Pharmacological therapy includes stimulants and non-stimulants<sup>7</sup>
  - Non-pharmacological treatments include restriction diet, nutrient supplements, and psychosocial interventions
- Psycho-stimulant treatment is not beneficial for 20-30% of children with ADHD<sup>8</sup>

## EVIDENCE-BASED PRACTICE QUESTION

**Question:** Are diet/nutrition and parent training treatments effective in managing the symptoms of children with ADHD?

**P** – Population of children with ADHD

**I** – Non-pharmacological treatment interventions

**C** – Comparing the various non-pharmacological interventions

**O** – Outcomes give evidence to the benefits of combined non-pharmacological treatment

## REGISTERED NURSE INTERVIEW

**Nurse:** Darrel Jones

**Facility:** Day-mont Behavioral Health Care

**Current Care:**

- Figuring out each child's trigger
- Setting up structure in the child's life
- Working with the child's family and school
- Adderall and Ritalin are commonly used medications

**Improvements needed:** More medical staff dedicated to the children, a friendlier clinical environment, and addressing total family needs when intervening in the care of children with ADHD<sup>4</sup>

## METHODS

**Databases:** PUBMED and MEDLINE

**Keywords:** “meta-analysis,” “ADHD,” “ADHD children,” “Pediatric ADHD,” “hyperactivity,” “diet,” “nursing,” “teaching,” “treatment programs,” “treatment,” and “food additives”.

**Inclusion:** children with ADHD, out-patient care, parent teaching, and nutrition/diet interventions

**Exclusion:** adults, in-patient care, therapy, support groups, and classroom interventions

**Level of evidence of articles:** one LOE I, one LOE II, four LOE V, one LOE VI, and one LOE VII

## LIMITATIONS

- Finding articles about non-pharmacological nursing interventions for children with ADHD proved to be a challenge
- Inconclusive data and wide range of possible therapeutic treatments made research difficult to synthesize

## SYNTHESIS OF EVIDENCE

- Two articles discussed the lack of significant support in stimulant treatment of ADHD<sup>8;9</sup>
- Two of the articles focusing on parent teaching<sup>1;8</sup> and four articles focusing on diet and nutrition<sup>2;5;6;7</sup> conclude that more research is needed
- One of the articles focusing on diet and nutrition, states that the traditional pharmacological treatments are most effective<sup>3</sup>
- The final article, focusing on parent teaching interventions said that parent training is the most important intervention, but that stimulant pharmacological treatment is still the first step in treating children with ADHD<sup>9</sup>

## RESULTS

- Non-pharmacological treatment is too significant to ignore, but cannot alone completely eliminate the symptoms of ADHD
- Stimulants are seen to be the most effective treatment, but have various side effects
- Various non-pharmacological treatments are helpful under certain conditions, but cannot be generalized to the entire pediatric population
- Research is needed on decreasing pharmaceutical doses and increasing diet restrictions and supplements
- Further research is required for non-pharmacological interventions

## EVIDENCE-BASED PRACTICE RECOMMENDATIONS

- Based on research there are therapeutic effects of both pharmacological and non-pharmacological treatment interventions
- More research is needed to determine combined therapeutic effects of non-pharmacological and pharmacological treatments

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