Promoting Health and Preventing Disease in Child Care

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Outline

- Why health promotion?
- Examples of health promotion in child care
- Channels of health promotion
- Nutrition & activity guidelines for preschool age
  - Current state of the nutrition & activity environment in child care centers
- Our research on barriers to PA in child care settings
- Next steps for research, collaboration, and policy

The importance of a focus on health promotion

- Unique opportunities for modeling & establishing healthy habits in children in child care
  - Group setting: both teachers and peers as models
  - Age group: tracking of behaviors → lifelong habits
- Cognitive learning opportunities in meals and exercise:
  - Language, vocabulary, social negotiation, reasoning, math, science

The importance of a focus on health promotion

- A better marketing pitch than *obesity prevention*
- Misperceptions of overweight
- Sensitivity to stigmas / teasing
- Parents are more concerned about diabetes, cancer, arthritis than “overweight”
  - Funders are often organized around obesity-related diseases, rather than “obesity”

Other benefits of exercise & healthy eating

- Healthy eating
  - Cancer prevention
  - Heart disease prevention
  - Bone health/osteoporosis prevention

- Physical activity
  - Improved fitness
  - Lower BP
  - Higher serum HDL
  - Increased bone mineral density
  - Improved mood, self-esteem & attention
  - Improved sleep?

Examples of health promotion in child care settings

- Immunization record required for entry
- Hemoglobin and lead screenings for Head Start
- Oral health screening
  - Required by Head Start in several locations
  - Visiting dental hygienist in Vermont
- Vision and Hearing screening
- Developmental screening
- SIDS prevention
- BMI screening (Head Start)

Health promotion programs related to diet and exercise in child care

- Healthy Start – NY (Williams 2002, 2004)
- Broccodile the Crocodile-NY- (Dennison, 2004)
- Hip Hop to Health Jr. - IL- (Fitzgibbon 2005, 2006)
- MAGIC –Glasgow- (JJ Reilly, 2006)
- NAP SACC – NC- (Benjamin, Ward, Ammerman, Ball 2007)
- I am Moving, I am Learning (Head Start)

Channels of health promotion & associated barriers

- Intervention programs in child care centers
  - Barriers: implementation & sustainability
- Child Care Health Consultants
  - Parents & child care directors very receptive (~80%) to nutrition and physical activity counseling through this channel*
  - Barriers: funding, time, infrastructure
- Linking the child back to the medical home

*Gupta R. *Pediatrics* 2005.

Barriers to obesity counseling by pediatricians*

Barrier	% of peds
Environmental barriers (treatment futility)	98%
Patient/parent not motivated, don't perceive a problem	65-99%
Low self-efficacy of obesity counseling	88%
Need for better succinct patient education materials	96%
Poor reimbursement for MD and non-MD staff	30-50%
Lack of time	~50%
Not a priority	?

*Perrin EM, *Amb Peds* 2005; Kolagotla L *Obes Res* 2004; Story MT *Pediatrics* 2002.

Review of nutrition guidelines for preschoolers

- 2005 USDA Dietary Guidelines:
  - Consume variety of types of fruits/veggies, whole-grain, 2 cups/day fat-free or lowfat milk, <35% of calories from fat, <10% saturated fat, no trans fat

- Expert committee 6/07 (AAP, ADA, AMA, AAFP)
  - Limit consumption of sugar-sweetened beverages (incl. 100% fruit juice)
  - Eat fruits/vegetables
  - Eat breakfast daily
  - Limit eating out, particularly fast food
  - Limit portion size

Physical activity guidelines for preschoolers

- NASPE, Feb 2002 for preschoolers/toddlers
  - 30 min structured PE (toddlers)
  - 60 min structured PE (preschoolers)
  - >60 min unstructured play
  - <60 min sedentary at a time
- AAP, May 2006
  - Free play should be encouraged, emphasis on fun
  - Limit screen time <2hrs/day
- Expert committee June 2007
  - Limit screen time to 1-2 hrs/day
  - 60 minutes of moderate to vigorous activity daily
- From Adult literature: shorter bouts of activity and even light activity may be very important for health - *stay tuned!*

Policies for child care settings

- Nutrition: Incongruence of CACFP with 2005 USDA guidelines:
  - Milk must be served at all meals, but no guideline on %fat
  - 100% fruit juice counts as fruit/vegetable
  - No requirement for whole grains
  - No limits on low-nutrition, high calorie foods, or fat content
- PA: Licensing guidelines vary widely among states
  - Very few require a minimum daily amount of activity
  - 22 states restrict screen time
- Opportunities for improvement!
- Top-down approaches vs. grass-roots approach

Story et al. *The Future of Children* 2006 143-168

Variability among centers

- Menu studies
  - Food served exceeds national recommendations for fat, % saturated fat
  - Not enough fresh fruits and vegetables
- The amount of physical activity children in childcare receive varies widely
  - Most children not meeting guidelines
  - The child care center attended is by far the strongest predictor of amount of physical activity
  - Amount of TV watched in childcare is relative unknown
- Opportunities for improvement!

The need for evidence-based recommendations

- Most recommendations are based on expert opinion, no data

- The goal of our current work in Cincinnati is to build evidence about what child care center environmental attributes successfully facilitate children's activity

Benefits of physical activity

Preliminary finding from focus groups

- Energy release
  - nap better
- Improved mood
  - Interact with parents better
- Improved concentration
  - Improved learning at group time
- Combating obesity

Barriers to physical activity

Preliminary finding from focus groups

Child:

- getting dirty
- injuries

Staff:

- not wanting to go outside
- staff overweight / lazy

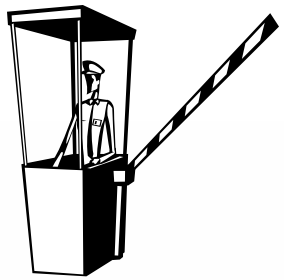
Parent:

- direct parent requests not to take child outside
- indirect
  - dressing child in improper clothing (eg flip flops, no coat, or nice/expensive clothes and jewelry)

Playgrounds & Policies

- **Problems** with playground climbers:
  - Kids quickly grow bored
  - Require teacher supervision and policing
- **Problems** with **mulch**
  - Toddlers eat it
  - Older children use it as weapons
  - Gets stuck in shoes / sandals

- Weather policies: wide variation (e.g., >20° F, > 32° F)
- Practice often deviates from written policy
- Role of individual teacher as gatekeeper to the playground



Areas ripe for research

- Epidemiology: what are children eating, how much physical activity are they getting?
- Environmental influences: what predicts dietary and activity behaviors in child care?
- Interventions: what works?
- Need for interdisciplinary and qualitative research

The need for ECE professional input and health-ECE collaborations

- Need to keep programs feasible and grounded in child care environment
- Need for interventions to be age-and developmentally appropriate
  - no 30 minute structured PE for toddlers!
- CHEER: Childcare, Health, & Early Education Research Consortium
- AAP provisional section on child care

Conclusions

- Health promotion in child care centers is happening already
- Promoting healthy eating and physical activity in child care makes sense for many reasons
- Some evidence suggests many child care settings are not healthy nutritional or physical activity environments
- More research needed
  - Interdisciplinary and qualitative research
  - Solution-oriented research, better evidence to guide recommendations

Implications to policy makers

- Need for paradigm shift
  - Reframing the way we view separate silos of health care delivery, health promotion, & early education
- Microscopically meaningful, tangible interventions
  - Focus on the nitty-gritty (mulch, coats, flip-flops)
  - Succinct handouts for families with specific suggestion of activities (not <35% cals from fat)
- Incremental policy interventions
  - Importance of grass-roots efforts, starting small, tailoring programs to meet local needs

Thank You!