Determinants of Change in Activity in Children 0-6 years: A quantitative and qualitative synthesis

Dr Kathryn Hesketh
CEDAR & UCL Institute of Child Health
Methods

Full texts retrieved and read in full
n = 164

Additional papers identified through reference search
n = 1

Papers excluded based on full text
n = 122
- Cross-sectional n = 32
- Inappropriate study population n = 17
- Inappropriate outcome measure n = 10
- No association described n = 53
- Other reason n = 11

Full text articles included in review
n = 43
- Prospective cohort studies n = 6
- Intervention studies n = 16
- Qualitative studies n = 21
Results – Quantitative Evidence

• 22 quantitative studies
  – 3 Prospective
  – 16 Intervention

• Objective measure - 15 studies (71%)

• Intervention studies: targeted multiple behaviours

• 6 intervention studies aimed to increase physical activity

• Measurement period:
  – Prospective studies - median 2.5 years (Range: 1-5 years)
  – Intervention studies - median 14 weeks (Range: 2 days to 2 years)
Results – Quantitative Evidence

• 27 determinants identified
• Prospective: 16 in individual, interpersonal and temporal domains
• Intervention: 11 in interpersonal, organisational and environmental domains
• 2 determinants assessed in 4 or more studies
  - Sex: no clear association
  - Enhanced curriculum: positive association

Other determinants assessed:
Results – Qualitative Evidence

- 21 qualitative papers; 13 distinct studies
- Common methods
- Care-providers, parents of preschool-aged children, children themselves
- Thematic and inductive analysis
Results – Qualitative Evidence

51 potential barriers and facilitators

Commonly identified influences:

• The role of parents and teacher
• Children’s perceived safety
• Weather
“You know, It’s all the teacher’s decision of how much time they’re gonna get and how much they’re gonna do.” (Teacher)

“...I’ve just started working full-time and it’s a long commute and I’m away from the home for such a long period of the day that [I] do more with the kids on the weekend.” (Parent)

“No, our teacher says that we can not play outside football or basket, because we are too lively and we are at risk of hurting any other.” (Child)

“I don’t think they really get their heart rate up much from climbing because with all the new licensing regulations, our climbing equipment isn’t that hard anymore.” (Teacher)

“They love it in all ways. When you don’t want to be out in the cold, they want to be outside.” (Teacher)

“I would say in the summertime it is not a problem so much because people here tend to be outdoors a lot. But in the winter time yes, and our winters are extremely long.” (Parent)
Conclusions

• Few determinants studied, or consistently associated with change in PA

• Similarities between determinants and barriers and facilitators assessed

• Potential utility of qualitative research to inform interventions to change activity