PAGAC Discussion on Topic Formation, Subcommittee Structure, Review of Evidence

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PAGAC Co-Chairs

Topic Areas

Proposed Topic Areas

1. Metabolic and Weight Management **John**,
2. Cancer- Primary Prevention **Anne**,
3. Individuals with Chronic Conditions (Cancer, Type II Diabetes etc.)**David B**,
4. Mental Health, Brain Health and Cognition and Psychosocial **Kirk**,
5. Dose Response **Bill**,
6. Sedentary Behavior **Peter**,
7. Youth **Russ**,
8. Elderly **Loretta**,
9. Promotion of Physical Activity (behavior, health promotion) **Abby**,

Issues to Discuss

- Should dose-response and sedentary be one topic?
- How to revisit topics in the 2008 guidelines not addressed in the selected topics?
- Topics mentioned but no home found:
  - Adverse events?
  - Resistance training?
- Consistent evidence inclusion criteria across all topic areas versus tailored inclusion at the discretion of the experts?
- More info on search/inclusion criteria for searches re meta-analysis/systematic reviews?

Draft Subcommittee Membership

- Cardiometabolic and Weight Management **John**, Wayne, Loretta, (Linda), Russ
- Cancer - Primary Prevention **Anne**, Ken, Peter
- Individuals with Chronic Conditions **David B**, Anne, Rich, (Bill), (Linda)
- Brain health **Kirk**, Chuck, David M, Rich
- Dose Response **Bill**, John, Ken, Wayne, Kathy
- Sedentary Behavior **Peter**, John, Ken
- Youth **Russ**, Chuck, Kathy, Melicia, Peter
- Aging **Loretta**, David B, Kirk, Abby, Wayne
- Promotion of Physical Activity (behavior, health promotion) **Abby**, Melicia, David M, John

Abstraction Detail

Option 1: Summary Table with Abstract

Citation:
Study Design: Group randomized trial
Study Setting: School
Study Population: Second grade students from selected schools in Georgia
Sample Size (analytic sample): 447
Intervention Characteristics: Continuous cardiorespiratory physical activity treatment 40 minutes per day, 5 times/week for 8 months
Outcome(s) & Measurement: BMI (kg/m^2), Body fat percent, Other, Other, Waist circumference (cm), Cholesterol (total) (mg/dL), Diastolic Blood Pressure, HDL cholesterol (mg/dL), Systolic Blood Pressure
Summary of NEL BAT Limitations: • Adequate, valid, and reliable measures were used consistently across both study groups. • It cannot be determined if adherence to the study protocols were similar across study groups. • It cannot be determined if participants or investigators were blinded to the intervention status.
Author-Stated Limitations: • Unsure of what factors influenced attendance in the intervention. • Transporting children home after the program was a large cost item (25% of program cost) and a logistical challenge in rural area schools. Thus, provision of after-school programs requires policy changes at institutional levels in such schools. • The exposure to the intervention was reduced from the originally planned 9 months to 8 months due to the challenging schedule of testing nearly 600 students in 18 schools at baseline and post-test. It might have reduced the potency of the intervention program.

Abstract:

Objective: To test the hypothesis that third grade children (mean age = 8.7, SD = 0.5) who attended an 8-month after-school program would exhibit favorable changes in body composition, cardiovascular fitness, blood pressure, total cholesterol, and high-density lipoprotein-cholesterol compared with children in control condition.

Research Methods and Procedures: Subjects were 61% African-American, 31% white, and 8% other racial background from 18 public schools. Sixty-eight percent were eligible for free or reduced price lunch. Percentage body fat and bone mineral density were assessed by DXA, cardiovascular fitness by heart rate response to a step test, resting blood pressure with a Dinamap, and non-fasting total cholesterol and high-density lipoprotein-cholesterol by finger stick. Data pre- and post-intervention were available for 447 children. Children in the nine intervention schools who attended at least 40% of the after-school sessions were compared with control subjects.

Results: Compared with the control subjects and after controlling for race, sex, free/reduced price lunch status, and school-level covariates, youths in the intervention group showed a relative reduction of percentage body fat [−0.76 (95% confidence interval (CI), −1.42, −0.09)], a greater relative gain in bone mineral density [0.008 (95% CI, 0.001, 0.005)], and a greater relative reduction in heart rate response to the step test [−4.4 (95% CI, −8.2, 0.6)]. The other outcome variables showed non-significant trends in favor of the intervention subjects.

Discussion: These results are promising in light of the potential impact on the emerging childhood obesity epidemic. The Medical College of Georgia FitKid Project has the potential to be institutionalized because it is built on the existing infrastructure in most public schools in the U.S.

Option 2: Summary Table with Result Highlights

Citation:	Outcome(s) & Measurement: BMI (kg/m^2), Body fat percent, Other, BMD (g/cm^2), Waist circumference (cm), Cholesterol (total) (mg/dL), Diastolic Blood Pressure, HDL cholesterol (mg/dL), Systolic Blood Pressure
Study Design: Group randomized trial	Results: • Significant difference in change in %BF in favor of the subjects in intervention schools. Subjects with 40% attendance decreased in %BF, whereas the control subjects gained slightly. • Intent-to-treat analysis, there was no significant difference between intervention and control subjects. • No other significant group differences in change in other secondary outcome variables, although there were trends in favor of the intervention subjects in most of the cases.
Study Setting: School	Summary of NEL BAT Limitations: • Adequate, valid, and reliable measures were used consistently across both study groups. • It cannot be determined if adherence to the study protocols were similar across study groups. • It cannot be determined if participants or investigators were blinded to the intervention status.
Study Population: Second grade students from selected schools in Georgia	Author-Stated Limitations: • Unsure of what factors influenced attendance in the intervention. • Transporting children home after the program was a large cost item (25% of program cost) and a logistical challenge in rural area schools. Thus, provision of after-school programs requires policy changes at institutional levels in such schools. • The exposure to the intervention was reduced from the originally planned 9 months to 8 months due to the challenging schedule of testing nearly 600 students in 18 schools at baseline and post-test. It might have reduced the potency of the intervention program.
Sample Size (analytic sample): 447	Conclusions: Year 1 data of MCG FitKid provide preliminary support for the hypothesis that providing access to a safe, super-vised, and age-appropriate setting for PA during the after-school hours will enhance body composition and CVF in elementary school children.
Intervention Characteristics: Continuous cardiorespiratory physical activity treatment 40 minutes per day, 5 times/week for 8 months	

Option 3: Summary Table with Data Details

Citation:

Study Design: Group randomized trial

Study Setting: School

Study Population: Second grade students from selected schools in Georgia

Sample Size (analytic sample): 447

Intervention Characteristics: Continuous cardiorespiratory physical activity treatment 40 minutes per day, 5 times/week for 8 months

Outcome(s) & Measurement: BMI (kg/m²), Body fat percent, Other, Other, Waist circumference (cm), Cholesterol (total) (mg/dL), Diastolic Blood Pressure, HDL cholesterol (mg/dL), Systolic Blood Pressure

Summary of NEL BAT Limitations:

- Adequate, valid, and reliable measures were used consistently across both study groups.
- It cannot be determined if adherence to the study protocols were similar across study groups.
- It cannot be determined if participants or investigators were blinded to the intervention status.

Author-Stated Limitations:

- Unsure of what factors influenced attendance in the intervention.
- Transporting children home after the program was a large cost item (25% of program cost) and a logistical challenge in rural area schools. Thus, provision of after-

Results

Strata-Overall:

BMI(kg/m²)

Control	Mean	SD	Mean (D)	n	p
Baseline	19.3	4.4	0.00	265	.18
Post-test	19.6	4.5	0.00	265	.18
Intervention	Mean	SD	Mean (D)	n	p
Baseline	19.4	4.7	0.00	182	.18
Post-test	19.5	4.7	0.00	182	.18

Waist (cm)

Control	Mean	SD	Mean (D)	n	p
Baseline	62.6	10.5	0.00	265	.32
Post-test	63.9	10.8	0.00	265	.32
Intervention	Mean	SD	Mean (D)	n	p
Baseline	62.9	11.5	0.00	182	.32
Post-test	64.0	11.4	0.00	182	.32

%BF

Control	Mean	SD	Mean (D)	n	p
Baseline	26.9	9.7	0.00	265	.027
Post-test	26.8	9.7	0.00	265	.027
Intervention	Mean	SD	Mean (D)	n	p
Baseline	26.5	9.4	0.00	182	.027
Post-test	25.8	9.5	0.00	182	.027

FM (kg)

Control	Mean	SD	Mean (D)	n	p
Baseline	9.8	6.6	0.00	265	.17
Post-test	10.5	7.0	0.00	265	.17
Intervention	Mean	SD	Mean (D)	n	p
Baseline	10.1	7.4	0.00	182	.17
Post-test	10.5	7.8	0.00	182	.17

FFM (kg)

Next Steps

Next Steps

- Federal liaison assigned to subcommittees
- Executive subcommittee formed and meeting established (subcommittee leads plus co-chairs)
- Subcommittees establish meetings
  - Need for consultant or expert presentations
- Subcommittees discuss questions and begin prioritizing
  - Consider available literature (reports, reviews, de novo systematic review)