Is the “Let’s Take Control of Asthma” Flipchart an Effective Asthma Self-Management Education Tool?

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PURPOSE
Assess the validity of “Let’s Take Control of Asthma,” an NAEPP guidelines-based self-management flipchart as an effective teaching tool for caregivers:

Primary Goal:
- Increase in caregiver asthma knowledge

Secondary Goals:
- Improvement in child's Asthma Control Test (ACT) scores
- Improvement in child's FeNO scores

TOOLS
Methods

Initial Visit
Understanding Asthma Assessment Tool
Asthma Control Test
NIOX® FeNO testing

Follow-up Visit
Understanding Asthma Assessment Tool
Asthma Control Test
NIOX® FeNO testing

Population of Focus
Parents of children 4-11 years old

Initial N = 57
41 Boys and 16 Girls
Mean Age 7 years old
Total Sample N = 53
Matched Pre & Post

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Matched Pre & Post

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Understanding Asthma Assessment (UAA)

UAA scores increased significantly from pre-test to post-test with mean difference of 42.16
95% Confidence interval of 38.24 to 46.09
t(52) = 21.58, p<0.01.

Asthma Control Test (ACT)

ACT scores increased significantly from pre-test to post-test with mean difference of 5.81
95% confidence interval of 4.78 to 6.84
t(52) = 11.32, p<0.01.
NIOX® FeNO testing

Niox scores were reduced significantly from pre-test to post-test with mean difference of 9.24
95% confidence interval of 3.96-14.56
t(20) = 3.61, p<0.01.

More findings

Linear regression was performed to find:

Effect of age and sex
  • No significant effect of age and sex (p>0.05)

Effect of time between visits
  • No significance on the magnitude of difference between UAA, ACT, and FeNO scores.

Conclusions

• "Let's Take Control of Asthma" flipchart health education tool is an effective tool to improve caregiver knowledge about asthma , p<0.01
• Improvement in ACT and FeNO measures are significant suggesting a positive impact of the educational tool on asthma control and inflammation
• No confounding effects of age and sex of children or follow-up visit interval
• NEXT STEPS?
References

Centers for Disease Control and Prevention. Learning and Growing through Evaluation: State Asthma Program Evaluation Guide. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Environmental Health, Division of Environmental Hazards and Health Effects, Air Pollution and Respiratory Health Branch, April 2010.

