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The Kenton Hardin County Family Bike Program.

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The Kenton Hardin County Family Bike Program (KHCFBP)

Jamie Hunsicker, DNP, RN

Nature & Scope of the Project

- Designed to increase participants' physical activity, knowledge of bike safety & maintenance, health food choices & nutrition
- 10-unit family biking & nutrition curriculum
- Largest portion focused on biking
- Ohio Maternal Child Health physical activity/nutrition grant received to implement evidence-based program



Project Implementation

- Evidenced-based, family-focused KHCFBP implemented in 2018
- Planning, implementation, & evaluation completed with support of interprofessional team
- Adult & youth participants learned about benefits of biking & walking, safe biking, and actions to reduce risks and barriers associated with biking
- Participants received helmets and bikes at completion of the KHCFBP



Outcomes

Helmet use & total bike riding hours increased

Bike Helmet Use: Wilcoxon Signed Rank Test					
Session	n	Pre-test M (SD)	Post-test M (SD)	Z	p
July	15	0.80 (1.42)	3.47 (0.83)	-3.22	0.001**
August	18	0.50 (1.30)	3.78 (0.94)	-3.77	<0.001***

Biking Hours Paired T-test with Listwise Exclusion							
Session	n	M	SD	t (df)	p	95% CI	
						LL	UL
July	13	0.80	1.20	2.42 (12)	0.032*	0.81	1.53
August	8	0.47	0.51	2.61 (7)	0.035*	0.04	0.89

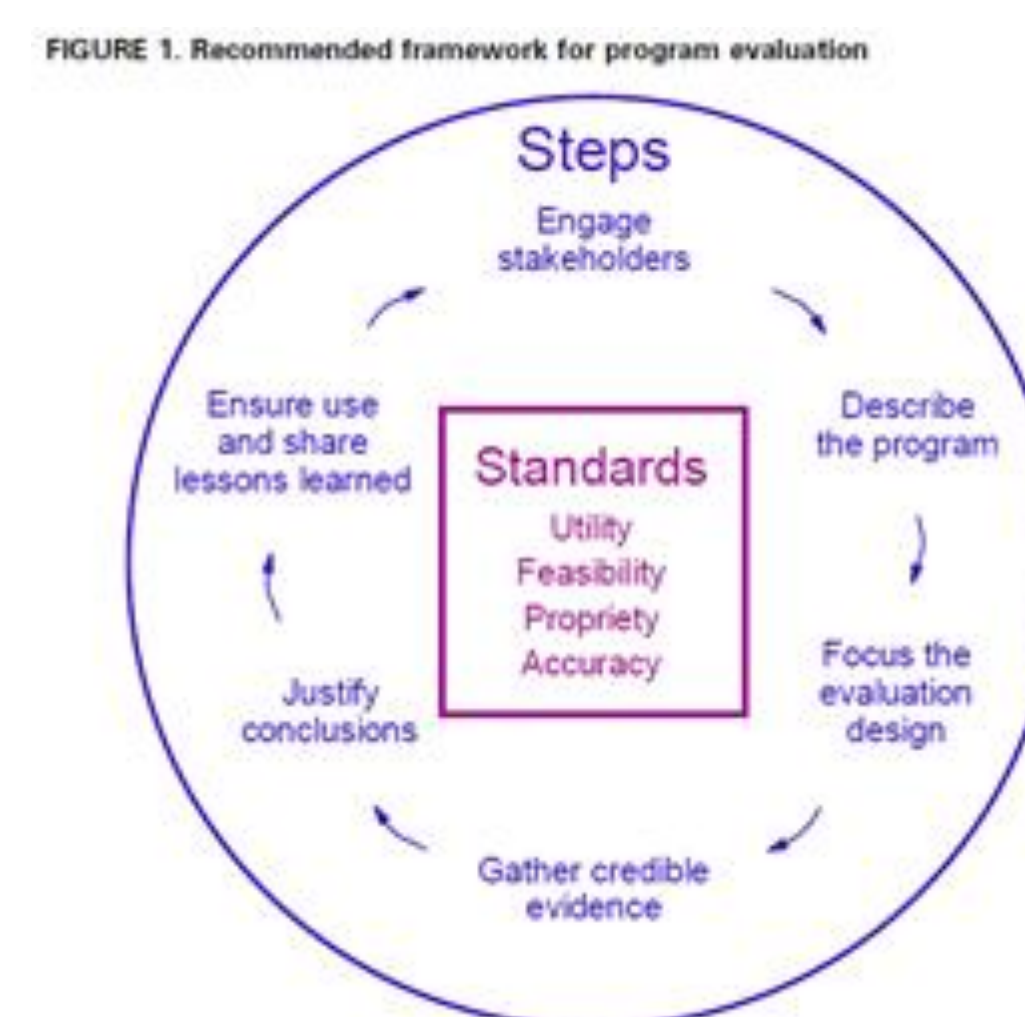
Bike safety knowledge and total physical activity hours increased for both groups with significance for July participants

Supporting Literature

- 70% of Hardin County adults were overweight or obese; 69% of adults do not meet physical activity guidelines (Hardin County Community Assessment Advisory Committee, 2014).
- 15% of Hardin County youth were obese; 71% of youth did not meet physical activity guidelines (Hardin County Community Assessment Advisory Committee, 2014).
- Healthy People 2020 objectives to increase PA including increasing proportion of biking trips of adults & children
- Evidence supports the health benefits of biking (Oja et al., 2011)
- Biking is influenced by risk, barriers, and facilitators (Bernstein et al., 2017).
- Bike programs are effective in reducing barriers and facilitating safe biking (Bernstein et al., 2017; Mendoza et al., 2017)

Evaluation Criteria

- Framework for Program Evaluation in Public Health* (CDC, 1999)



- Participants' change in bike safety knowledge, frequency of bike riding and walking, and bike helmet use were measured pre-intervention, immediately post-intervention, & 30-days post-intervention

Recommendations

- Community programs that promote safe biking are an evidence-based strategy to increase participant bike safety knowledge, bike helmet use, and biking frequency
- Public health nurses should consider implementing a family bike program as a means to promote bike safety & to address Healthy People 2030 physical activity goals

Reference

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