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## 2021 Midwest Nursing Research Society Award-Winning Abstracts.

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**Purpose and Background/Significance:** With growing evidence of the benefits of physical activity and risks associated with physical inactivity (McKinney et al., 2016), there has been increased focus on implementation of evidence-based interventions to promote physical activity. Providing education on, and practice with, safe biking as well as providing safe equipment may decrease barriers to biking and increase rates of physical activity. In 2017, data for Hardin County, Ohio, indicated a level of physical activity lower than national health goals. As part of the Ohio Maternal Child Health activity/nutrition grant, an innovative family bike program was developed and implemented in Summer 2018. The purpose of this evidence-based Doctor of Nursing Practice project was to evaluate the effect of the Kenton Hardin County Family Bike Program (KHCFBP) on participants' bike safety knowledge, bike helmet use, bike riding, and walking.

**Theoretical/conceptual framework:** The *Framework for Program Evaluation in Public Health* (CDC, 1999) provided the framework for this project. Key concepts include program evaluation, systematic examination of any public health activity to determine its worth, merit, or significance, and outcome evaluation, the extent to which a program achieves its outcomes in target populations.

**Method:** This project used a descriptive, correlational design with analysis of pre-existing, de-identified data. Pre-test, post-test, and 30-day post-test instruments were developed by the creators of the KHCFBP. Measurable outcomes were change in bike riding and walking frequency, bike helmet use, and bike safety knowledge following participation in the KHCFBP.

**Results:** The sample included all participants who completed the KHCFBP (July, n = 30; August, n = 22). Both July and August participants' bike helmet use and total bike riding hours

significantly increased following the KHCFBP. Participant bike safety knowledge and total physical activity hours increased following the KHCFBP with significance for July participants.

**Conclusions:** Community bike programs may be used as an evidence-based, public health strategy to increase participant bike safety knowledge, bike helmet use, and biking frequency. Community bike programs may be one method to increase physical activity via biking, reduce risks association with biking, and reduce barriers to biking. Public health nurses should consider implementing a family bike program as a strategy to promote biking and physical activity within the community.