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Goat Yoga: Preliminary Implications for Health, Agriculture, and 4-H

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Abstract

Goat yoga, an event that combines yoga and interactions with goats, may serve as a cross-initiative program that can promote both health and agriculture. This article describes the potential impact of goat yoga and the results of a pilot program. Adult attendees of the pilot event completed a questionnaire assessing knowledge of and intentions to be involved with yoga, goats, and 4-H. Participants increased their knowledge of each area and indicated intentions to use goat products and to visit the goat barn at the county fair. Future work is needed to establish effects of goat yoga within Extension, and, if successful, embed these practices at a large scale.

Keywords: goat yoga, Extension, agriculture, physical activity

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Various aspects of public health in the United States are intertwined with agriculture. Seventy-eight percent of adults and 79% of youths are not meeting physical activity guidelines for Americans (Clarke, Norris, & Schiller, 2017; Office of Disease Prevention and Health Promotion, 2018). More sedentary habits have prevailed as there has been a shift in lifestyle in the country over the last 150 years from 50% of families living and physically working on farms (Daly, 1981) to less than 2% doing so (U.S. Department of Labor Bureau of Labor Statistics, 2017). Moreover, with current trends in population and dietary behaviors, the United States will not be able to sustain its food production to meet the population's needs (Godfray et al., 2010); stimulating interest in agriculture is one response to this challenge (Wildman & Torres, 2001). Taken together, the program areas of Extension are poised to engage in unique approaches to influence public health.

To address these concerns, Extension links farmers and consumers through initiatives such as Farm to School (Benson, 2014; Feenstra & Ohmart, 2012). However, physical activity promotion is a new Extension focus area (U.S. Department of Agriculture, 2015a, 2015b), and "the farm" (or ranch) has not yet been linked to physical activity promotion. One trend that seems like a natural fit is goat yoga, a popular event that combines yoga (meditation, breath work, and physical postures) and interactions with goats (Johnson, 2016; Tuttle, 2017;

Willingham, 2017). There may be an opportunity to leverage interest in involving farms or ranches in efforts to influence physical activity behaviors, and goat yoga could serve as a cross-initiative program influencing multiple Extension areas.

- *Physical activity.* Practicing yoga can help adults meet physical activity recommendations for muscle-strengthening activities (2 days or more per week targeting major muscle groups) (Centers for Disease Control and Prevention, 2015). Additionally, participating in yoga may lead to more healthful eating and higher levels of physical activity (Watts, Rydell, Eisenber, Laska, & Neumark-Sztainer, 2018).

- *Agriculture.* Exposing goat yoga participants to the goat industry may generate interest in goat products (meat, milk, and cashmere wool) and functions (controlling weeds and serving as pack animals). Additionally, goat yoga could increase interest in raising goats in urban areas, as goats are often allowed where larger livestock are not (Koski, 2012; University of California, Agriculture and Natural Resources, 2018; Wyckoff, 2018).

- *4-H.* Goat yoga may generate interest in 4-H livestock projects, which build character and discipline in youths (Boleman, Cummings, & Briers, 2005). Engagement in agriculture also can lead to interest in agricultural careers and entry into relevant workforce sectors, where increases are needed to meet the high demands for this growing industry (Wildman & Torres, 2001).

Program Description

We designed a goat yoga event through a partnership with a registered yoga teacher and a meat goat breeder. The yoga teacher led attendees through a 45-min yoga practice in the breeder's goat barn. Approximately 20 young goats were free to interact with participants (e.g., goats climbed on participants' laps and participants petted and cuddled goats). After the yoga practice, participants interacted with an educational display containing information on yoga, goats, and 4-H. The goals of the event were to raise money for 4-H and to increase knowledge of and intentions to be involved with yoga, goats, and 4-H. The University of Wyoming Institutional Review Board approved the project as exempt.

We used a retrospective "pre-post" questionnaire to evaluate the event from the perspective of the adult attendees. The questionnaire assessed (a) knowledge of yoga, goats, and 4-H via a 5-point Likert scale ranging from 1 (*very low*) to 5 (*very high*) and (b) intentions to become involved with yoga, goats, and 4-H (via questions having the answer choice options *no*, *maybe*, *yes*, and *already doing this*). We analyzed responses using SPSS Version 25.

Thirty-seven adults and five youths attended the goat yoga event. Of the adults, 26 (70%) completed the questionnaire. We compared participants' levels of knowledge of yoga, goats, and 4-H from before to after the event. Implementation of the Wilcoxon signed-rank test indicated that the event elicited statistically significant changes in knowledge of yoga ($Z = -2.596$, $p = .009$), knowledge of owning goats ($Z = -2.762$, $p = .006$), and knowledge of 4-H ($Z = -2.460$, $p = .014$). See Table 1 for results of the yoga, goats, and 4-H intentions items.

Table 1.

Intentions to Become Involved with Yoga, Goats, and 4-H ($n = 26$)

Item	No *f* (%)	Maybe *f* (%)	Yes *f* (%)	Already doing this *f* (%)

Practice yoga regularly?	0 (0%)	11 (42%)	5 (19%)	10 (39%)
Engage in strength training at least twice a week?	0 (0%)	7 (27%)	7 (27%)	12 (46%)
Use goat products (e.g., milk, cheese, cashmere clothes)?	4 (15%)	5 (19%)	12 (46%)	4 (15%)
Raise goats?	16 (62%)	6 (23%)	1 (4%)	1 (4%)
Participate in 4-H (enroll youth in 4-H or become a 4-H volunteer)?	12 (46%)	5 (19%)	2 (8%)	5 (19%)
Visit the livestock barn at the Fremont County Fair?	5 (19%)	6 (23%)	8 (31%)	7 (27%)

Although the results presented here are from an evaluation of a small sample from one event, they suggest that participation in a goat yoga event can increase knowledge of each of the three targeted Extension program areas. Additionally, participation in goat yoga may influence intentions to practice yoga regularly, engage in strength training at least twice a week, use goat products, and visit the livestock barn at the county fair.

Goat yoga may not increase intentions to raise goats; however, this is unsurprising due to the commitment required to carry out this endeavor. More resources and hands-on education may be necessary to influence participants to raise goats. Additionally, goat yoga may not increase intention to participate in 4-H. Although we provided information about the 4-H program in general, adult participants may not have been familiar with 4-H volunteer opportunities or may not have had children of 4-H age.

More participants were already doing yoga compared to those already using goat products or raising goats and to those already involved with 4-H. This circumstance suggests that goat yoga events may appeal to those who are more familiar with yoga than with goats or 4-H. Accordingly, goat yoga events could be used to further the reach of education to nontraditional Extension audiences. These audiences may attend a goat yoga event because they enjoy yoga, but they may learn about agriculture and 4-H livestock projects in the process.

Conclusion

To the best of our knowledge, ours is the first study to address the impacts of goat yoga. The results suggest that this cross-initiative program can influence knowledge and behavioral intentions related to both physical activity and agriculture. Future work is needed to examine the outcomes of involving youths with goat yoga to promote agriculture through 4-H and to evaluate behavior change as a result of goat yoga participation. Implementing goat yoga through Extension at a larger scale could lead to reaching nontraditional Extension audiences and influencing both chronic disease prevention and agricultural production.

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