Journal of Agromedicine

ISSN: 1059-924X (Print) 1545-0813 (Online) Journal homepage: http://www.tandfonline.com/loi/wagr20

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To cite this article: Hamida A. Jinnah & Zolinda Stoneman (2016) Influence of Permissive Parenting on Youth Farm Risk Behaviors, Journal of Agromedicine, 21:3, 244-252, DOI: 10.1080/1059924X.2016.1179610

To link to this article: http://dx.doi.org/10.1080/1059924X.2016.1179610

Accepted author version posted online: 02 May 2016.
Published online: 02 May 2016.

JOURNAL OF AGROMEDICINE
2016, VOL. 21, NO. 3, 244–252
http://dx.doi.org/10.1080/1059924X.2016.1179610

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Influence of Permissive Parenting on Youth Farm Risk Behaviors

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ABSTRACT

Farm youth continue to experience high rates of injuries and premature deaths as a result of agricultural activities. Increased parental permissiveness is positively associated with many different types of high-risk behaviors in youth. This study explored whether permissive parenting (fathering and mothering) predicts youth unsafe behaviors on the farm. Data were analyzed for 67 youth and their parents. Families were recruited from a statewide farm publication, through youth organizations (i.e., FFA [Future Farmers of America]), local newspapers, farmer referrals, and through the Cooperative Extension Network. Hierarchical multiple regression was completed. Results revealed that fathers and mothers who practiced lax-inconsistent disciplining were more likely to have youth who indulged in unsafe farm behaviors. Key hypotheses confirmed that permissive parenting (lax-inconsistent disciplining) by parents continued to predict youth unsafe farm behaviors, even after youth age, youth gender, youth personality factor of risk-taking, and father's unsafe behaviors (a measure associated with modeling) were all taken into account. A key implication is that parents may play an important role in influencing youth farm safety behaviors. Parents (especially fathers) need to devote time to discuss farm safety with their youth. Farm safety interventions need to involve parents as well as address and respect the culture and values of families. Interventions need to focus not only on safe farm practices, but also promote positive parenting practices, including increased parent-youth communication about safety, consistent disciplining strategies, and increased monitoring and modeling of safe farm behaviors by parents.

KEYWORDS

Lax-inconsistent disciplining; permissive parenting; youth farm risk behaviors; youth farm safety

Introduction

Farming is considered a dangerous occupation. Family farms are unique in that children live in the midst of a dangerous workplace. Farm youth continue to experience high rates of injuries and premature deaths as a result of agricultural activities. An estimated 13,996 farm youth sustained injuries in 2006[1]; additionally, between 100 and 150 youth are killed on US farms each year.[2] Powerful farm equipment, especially tractors, is the most common cause of fatal and nonfatal injuries to children working on farms.[1,3,4] Injuries and fatalities from tractor rollovers, run overs, and power take-off (PTO) entanglements occur commonly when youth operate tractors alone.[5] Rollover protective structures (ROPS) along with a fastened seatbelt can prevent almost all injuries and fatalities from tractor overturns.[6] In spite of the life-saving potential of the ROPS-seatbelt combination, more than half of the operators on seat belt–equipped tractors never use a seat belt.[6]

Farm injuries to youth increase with age.[7] Boys are almost twice as likely to be injured compared with girls.[7] Youth personality factors like risk-taking tendencies also play a role in injury incidence. Psychological theories suggest that youth who are more sensation-seeking have a greater willingness to take physical and social risks.[8] Consequently, they are also more prone to injuries,[9] probably because they are more likely to expose themselves to inherently risky situations. Youth risk-taking is known to be a strong predictor of youth farm injuries.[10]

In the United States, youth on family farms are exempt from occupational safety regulations and have no safety training requirements.[11] Youth learn about farming safety primarily from fathers as they are introduced to new tasks and chores.[12] Farming knowledge is generally passed on from generation to generation, often through fathers and sons.[13,14] It is the parents who, based on social norms or intuition, determine whether a youth has the physical and cognitive skills to start performing

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certain farm tasks. It is also well-known that modeling plays an important role in understanding and predicting human behaviors.[15] Fathers are powerful role models, especially for sons.[16] This is also true in the context of farming, where youth imitate their fathers and other adults by doing things the way they do, rather than how they teach them to do.[12,17] In addition to modeling, parenting style also influences youth safety behaviors, although this has not been studied much in the farming context.

It is known that parenting contributes in a meaningful way to developmental outcomes well into adolescence.[18,19] Parenting style has been shown to be very robust in explaining how parenting practices relate to child outcomes.[20,21] Baumrind's conceptualization of parenting styles captures two important elements of parenting: parental responsiveness (warmth or supportiveness) and parental demandingness (behavioral control).[21,22] Categorizing parents according to whether they are high or low on parental demandingness and responsiveness has been used by developmental psychologists to create a typology of four parenting styles: indulgent, authoritarian, authoritative, and uninvolved.[21] Each of these parenting styles reflects different naturally occurring patterns of parental values, practices, and behaviors[22] and a distinct balance of responsiveness and demandingness.

This study focused specifically on permissive parenting, also referred to as lax-inconsistent disciplining, indulgent, or nondirective parenting. In this study, we use the terms permissive parenting and lax-inconsistent disciplining interchangeably. Being low in control and high in responsiveness, permissive parents are less likely to develop and enforce rules, may be lax about behavioral standards, have few requirements for their youth, and do not monitor their youth's activities. Parental permissiveness is viewed as leaving the child without a clear sense of parental expectations.[23] These parents tend to be more likely to accept and succumb to their children's impulses, desires, and actions. Increased parental permissiveness is positively associated with high-risk behavior in youth, including more frequent sexual activity, elevated rates of pregnancy, and risky driving behaviors.[24–26]

Studies have shown that permissive parenting, low parental monitoring, and increased youth risk-taking are associated with increased number of injuries in children and youth.[27,28] An authoritative parenting style, which encompasses a balance of warmth and control, facilitates the internalization of standards conveyed by parents enabling children to view themselves as being capable of following those standards and increases the likelihood of them adhering to those standards.[23]

Key research questions for this study were (1) Are fathers and mothers who practice lax-inconsistent disciplining more likely to have youth who indulge in unsafe farm behaviors? (2) After controlling for youth age, does parenting (lax-inconsistent fathering) predict youth unsafe farm behaviors, beyond youth characteristic of risk-taking, and father's modeling of unsafe behaviors? (3) After controlling for youth age, does parenting (lax-inconsistent mothering) explain youth unsafe farm behaviors, after taking into consideration youth risk-taking?

Methods

Participants

The research questions in this article were a part of a larger family-based randomized control intervention study focused on youth farm safety, with detailed methodology available elsewhere.[29] Families having youth ages 10 through 19 years who lived or worked on the farm and were actively involved in farming were included. When families had multiple children, the target youth was selected by families as the most actively involved in farm work. All youth in this study were active in farm work and drove tractors. In this study, pre-intervention data were analyzed for 67 youth and their fathers and mothers. Families were recruited from southern Georgia through farm publications, youth organizations such as National FFA (formerly known as Future Farmers of America), local newspapers, farmer referrals, and through the cooperative extension network. Families received $25 for completing the study measures. During a home visit, project staff visited the family home and had the family (both parents and youth) fill out questionnaires before implementing the intervention. Youth completed the data independently. To ensure confidentiality, each of the

parents and the children sealed their completed data sheets in a separate envelope, identified only by the family number. The sealed envelopes were then placed in a United States Postal Service mailing box to be sent to the university in Athens, Georgia. The study was approved by the University of Georgia Institutional Review Board, and both parents and youth granted consent prior to participation.

Procedure

The risk taking and lax parenting scales have been used by others with youth. The Father's and youth's unsafe farm behaviors were measured using a scale that was adapted from the Risky Behaviors Scale, a 16-item measure guided by the Theory of Planned Behavior.[30] Questionnaires contained the following measures.

Dangerous risk-taking

Youth risk-taking was measured using the dangerous risk-taking scale[10] consisting of 5 items: (a) I would rather take risks than be overly cautious; (b) In the past month, I have done some exciting things that other people think are dangerous; (c) I love to take risks even when there is a small chance I could get hurt; (d) Sometimes people get on my nerves when they tell me how to act "more safely"; and (e) I value having fun more than being safe. Respondents rated each item on a 5-point scale ranging from strongly disagree (1) to strongly agree (5). Cronbach's alpha for the scale was .76 (mean = 10.78, *SD* = 3.91, range = 4 to 19).

Lax-inconsistent or permissive parenting

A modified version of the Children's Reports of Parental Behaviors Inventory (CRPBI)[31] was used in the present study. The scale evolved from factor analytically derived, three-dimensional conceptualization of parental behavior. The study explored the dimension of "firm control versus lax control." Children's report of parenting was selected to reflect the child's individual experience of parenting rather than shared family experiences reflected in parent report of parenting.[32]

The principal measure of parenting behavior in the present study was lax-inconsistent parenting, which was created by combining two subscales, viz., lax discipline and inconsistent discipline. Children reported on their fathers' and mothers' lax-inconsistent parenting separately. Each of these scales included 13 items. Each item consisted of a statement describing the father or mother, to which the child responded by indicating whether the behavior described in the statement was 0 (not), 1 (somewhat), or 2 (a lot) like their father or mother. Some items were as follows: My father/mother forgets the rules they have made; punish me for doing something one day, but ignore it the next; it depends on their mood whether a rule is enforced or not; they frequently change the rules that I am supposed to follow; insist that I follow a rule one day and then forget about it the next; they are easy with me; they let me off easy when I do something wrong; they find it hard to say no to anything I want; do not insist that I obey if I complain or protest; I can talk them out of an order if I complain; my mother/father can be talked into things easily; they often don't enforce the rules that they set for me. Alpha for the lax-inconsistent fathering scale was .90 (mean = 20.28, *SD* = 4.63, range = 14 to 31) and lax-inconsistent mothering scale was .82 (mean = 19.41, *SD* = 5.63, range = 14 to 31). Lax-inconsistent fathering and mothering were combined (added) to create a lax-inconsistent parenting scale (26 items) with an alpha of .91 (mean = 39.56, *SD* = 9.07, range = 28 to 61).

Father's unsafe farm behaviors

Fathers indicated on a 4-point scale how often (3 = *Frequently* to 0 = *Never*) they engaged in 24 unsafe behaviors in the past year. Unsafe behaviors related to fatigue, tractors, harvest equipment, and power take-offs (PTOs). Alpha for the scale was .87 (mean = 42.78, *SD* = 12.97, range = 4 to 72).

Youth unsafe farm behaviors. Youth also indicated how often (3 = *Frequently* to 0 = *Never*) they engaged in the same 24 unsafe behaviors as their fathers, in the past year. Unsafe behaviors related to fatigue, tractors, harvest equipment, and power take-offs (PTOs). Alpha for the scale was .90 (mean = 26.73, *SD* = 13.25, range = 0 to 56).

Results

Descriptive analyses

Demographics for the youth, fathers, and mothers are presented in Table 1. Majority (87%) of the youth were male. All youth in the study drove tractors. On average, mothers had higher levels of education than fathers. The average farm was about 650 acres. The percentage of families identifying cotton as their primary crop was highest, followed by peanuts and hay. This crop profile was very representative of Georgia farming. The mean family income from all sources was between $80,000 and $89,000, whereas the average income from sale of agricultural products was between $50,000 and $59,000. Whereas only 33% of fathers had a college degree or more, close to 60% of mothers had more than a college degree. In most families, the father was the primary farmer. Close to 67% of mothers were employed outside home in addition to the farm work, whereas only 36% of fathers had outside jobs. All families were Caucasian.

Correlations

Means, standard deviations, and zero-order correlations between the variables are presented in Table 2. The dependent variable, youth unsafe farm behaviors, was approximately normally distributed (skewness, .17 to .29). The Kolmogorov-Smirnov test was nonsignificant. Youth who had higher risk-taking tendencies and those who were older were more likely to indulge in unsafe farm behaviors. Unsafe farm behaviors of father and youth were correlated. The first hypothesis was confirmed that fathers and mothers who practiced lax-inconsistent disciplining were more likely to have youth who indulged in unsafe behaviors on the farm. The lax-inconsistent disciplining style was highly positively correlated for mother-father dyads, $r(64) = .597$, $P = .000$. Youth unsafe farm behaviors increased with youth exposure to farm work such that the more hours youth spent working on the farm, the more likely they were to indulge in unsafe behaviors, $r(60) = .26$, $P < .05$.

Table 1. Demographic characteristics of youth, fathers, and mothers ($N = 67$).

Characteristic	*M* (min–max)	*SD*
Youth		
Age (years)	14.82 (10–19)	2.42
Hours worked on farm per week	16.95	15.14
Father		
Age (years)	44.97 (34–65)	7.29
Years of farming	25.84	11.87
	n	%
Education		
Less than 12th grade	3	4.5
High school graduate	23	34.3
Some college	19	28.4
College degree	19	28.4
Graduate degree	3	4.5
	M	*SD*
Mother		
Age	42.05	5.89
Years of farming	18.62	9.60
	n	%
Education		
High school graduate	7	10.9
Some college	19	29.7
College degree	24	37.5
Graduate degree	14	21.9

Hierarchical multiple regression model

Two separate hierarchical multiple regression models were run, first with lax-inconsistent fathering and the other with lax-inconsistent mothering as a predictor. Since lax-inconsistent fathering and mothering were highly correlated, both models were identical. So the two variables were combined (added) to create a lax-inconsistent parenting variable. A final hierarchical multiple regression was then completed using four steps. The first step consisted of youth age and youth gender as control variables. In the second step, youth risk-taking was entered. The third step included father's unsafe behaviors, and a measure for lax-inconsistent parenting was entered in the last step. Since fathers were the primary farmers in the study families, they were more likely to perform tractor and equipment-related tasks. Since youth learn about farming and farm safety mainly from their fathers and imitate their fathers' farm behaviors, father's unsafe farm behaviors composite was used as a measure to represent father's modeling.[12,17] Although mothers on farms have a busy schedule due to involvement in multiple tasks such as feeding livestock and keeping financial records, they are less likely to be involved in operating heavy machinery, including tractors.[14,33] The influence of mother's unsafe farm behaviors was excluded from this analysis.

Table 2. Means, standard deviations, and zero-order intercorrelations between youth unsafe behaviors and predictor variables including parenting.

	Variable	*M*	*SD*	1	2	3	4	5	6
1	Youth unsafe behaviors	26.73	13.25	1	.48**	−.65	.40**	.24*	.43**
	Predictor variables								
2	Youth age	14.82	2.42	—	1	.48	.21	−.04	.19
3	Youth gender	1.13	.34			1	.12	−.12	−.10
4	Youth risk-taking	10.77	3.91	—	—	—	1	.16	.21
5	Father's unsafe behaviors	42.78	12.97	—	—	—	—	1	.20
6	Lax-inconsistent parenting	39.56	9.07	—	—	—	—	—	1

*$P < .05$; **$P < .01$.

The regression model was significant (see Table 3), accounting for 43% of the adjusted variance in youth unsafe behaviors. After controlling for age and gender, youth risk-taking contributed 9% of variance in youth unsafe behaviors. At Step 3, father's unsafe behaviors accounted for an additional increment of 6% unique variance. The change in R^2 at that third step shows how much of the variance in youth unsafe behaviors is shared with father's unsafe behaviors and not with youth risk-taking. Lax-inconsistent parenting contributed an additional 6% of unique variance to the prediction of youth unsafe behavior, over and above that contributed by preceding variables in the model. Results confirm the second hypothesis that lax-inconsistent parenting contributes significant unique variance to unsafe youth behaviors, over and above the variance contributed by youth age, gender, youth risk-taking, and father's unsafe behaviors.

Discussion

Results indicate that youth unsafe farm behaviors increased with their exposure to farm work; the more hours youth spent working on the farm, the more likely they were to indulge in risky farm tasks. This is in line with past evidence of links between increased exposure to farm work and farm injuries.[34] As in previous research,[7,10,35] older youth and those who had higher risk-taking tendencies were more likely to indulge in unsafe farm behaviors. As expected, unsafe farm behaviors of father and youth

Table 3. Hierarchical multiple regression analysis summary for youth age, risk-taking, father's behaviors, and lax-inconsistent discipline predicting youth unsafe behaviors ($N = 63$).

Variable	*B*	*SE B*	β	R^2	ΔR^2	*F*	*df*	*P*
Step 1				.24	.27	10.85	1, 60	.000
Youth age	2.87	.62	.51***					
Youth gender	−1.98	4.43	−.05					
Constant	−13.89	10.64						
Step 2				.33	.09	11.05	1, 59	.000
Youth age	2.45	.60	.44***					
Youth gender	−3.58	4.21	−.09					
Youth risk-taking	1.08	.37	.30**					
Constant	−17.35	10.09						
Step 3				.38	.06	10.29	1, 58	.000
Youth age	2.58	.58	.46***					
Youth gender	−2.73	4.07	−.07					
Youth risk-taking	.881	.36	.26*					
Father's unsafe behaviors (modeling)	.26	.11	.24*					
Constant	−29.50	11.02						
Step 4				.43	.06	10.49	1, 57	.000
Youth age	2.32	.56	.41***					
Youth gender	−2.09	3.88	−.05					
Youth risk-taking	.75	.35	.22*					
Father's unsafe behaviors (modeling)	.22	.11	.20*					
Lax-inconsistent parenting	.40	.15	.27**					
Constant	−38.84	11.07						

*$P < .05$; **$P < .01$; ***$P < .001$.

were correlated, suggesting the possibility that youth may model their fathers' unsafe farm behaviors.

Parenting style

Permissive disciplining style was highly positively correlated for the mother-father dyads. Results revealed that fathers and mothers who practiced lax-inconsistent disciplining were more likely to have youth who indulged in unsafe farm behaviors

Key hypotheses confirmed that lax-inconsistent disciplining by parents continued to predict youth unsafe farm behaviors, even after youth age, youth gender, youth risk-taking, and father's unsafe behaviors (a measure associated with modeling) were all taken into account. These findings affirm that farm behaviors belong on the list of adolescent behaviors (including fire setting, traffic violations) known to be positively influenced by permissive parenting styles.[26,36] A similar finding was reported by Morrongiello et al.[27] where permissive parenting of mothers was found to be a risk factor for medically attended injuries in young children, even after controlling for the child's age, gender, and risk-taking tendencies.

Parenting style is a global construct that creates a context for the parent's overall emotional attitude towards a child, which is not domain specific.[20] Parenting practices or behaviors are specific to socialization domains, for example, safety practices on the farm. The overall parenting style enhances the effectiveness of specific parenting practices to create desired child outcomes.[20] Using a permissive parenting style in general would mean the parent is lax and inconsistent in their parenting behaviors related to farm work safety. The link between permissive parenting and youth farm injury risk may be mediated by the specific strategies that parents use, such as teaching about safety, creating clear rules, and pairing them with appropriate and reasonable consequences. Whereas permissive parents are more likely to use explanations only (over setting rules), authoritative parents maintain a balance by using explanations and rules.[37] Promoting positive parenting practices in farm parents could help increase youth safety behaviors on the farm.

Positive parenting practices

When it comes to setting rules related to farm work, several challenges present themselves. Some parents may not be aware of the unsafe farm behaviors engaged in by their youth, others may not realize the inherent injury risks associated with certain farm tasks, and some others may not believe in the efficacy of safety practices or rules in preventing youth injuries. Farm parenting practices may be rooted in the deep cultural belief that farm work is important for youth's development, and that some risks and minor injuries are an essential part of farm life to help youth to learn and become strong.[38,39] Farmers may, therefore, let their youth take what they believe are "calculated risks." Some parents may set rules, but the rules may not have been explicitly communicated to the youth, which may create ambiguity about parental expectations. Rules need to be clear, and they need to be paired with appropriate and reasonable consequences. Following through with consequences sometimes poses challenges for parents. Parents may not have the time or energy to insist on following through with consequences; they may forget the rules they have made; or they may be inconsistent in implementing the consequences. Past research shows that youth's adoption of safe farm behaviors is dependent on the perceived support for engaging in those behaviors from significant others, especially fathers.[40] Jinnah et al.[29] found that in the farm safety intervention group, when fathers talked to youth and required them to wear seatbelts on ROPS tractors, youth were more likely to wear them, compared with other groups. It is important for fathers to devote time to discuss farm safety with their youth and jointly develop rules and consequences with them. Even more important is for parents to remember the rules and be consistent (across time and between each other) in the enforcing the consequences. Although it is generally assumed that parents have the ability to assess youth aptitude for performing farm tasks, they may not be able to discern the level of risk involved for youth in performing a task. Farm parents tend to underestimate the inherent injury risks in certain farm tasks for youth. They may,

therefore, allow youth to engage in tasks for which they lack the necessary physical, perceptual, and cognitive maturity, putting them at risk for injuries.[41] The North American Guidelines for Children's Agricultural Tasks (NAGCAT) were developed by the National Children's Center for Rural and Agricultural Health and Safety.[42] Focused on youth aged 7 to 16, NAGCAT addresses the developmental appropriateness of specific farm tasks, the desired level of adult supervision, and the developmental capabilities of youth at different ages. Widespread testing and dissemination of these among farm parents ought to be a priority.[43]

Parental monitoring

Similar to other high-risk behaviors such as alcohol use, farm fathers tend to not be aware of, and significantly underestimate, the risky behaviors practiced by their youth on the farm.[38,44] Fathers need to be made aware of their over optimism related to youth farm behaviors and the importance of knowing what their youth is doing on the farm. Parents need to monitor their youth's farm work and provide adequate supervision, depending on youth's age, developmental level, other youth behavioral attributes, and the nature of the farm tasks.[45] Parents also need to regularly inspect their farm for potential environmental hazards that may be beyond the youth's control and eliminate as many hazards as possible. Parents can help in increasing the use of personal protective equipment by youth (such as hearing protection, ROPS accompanied with seatbelts) by making them available and giving reminders to their youth.

Parents as role models

Parent-child relationship involves bidirectional influences, such that characteristics of youth influence parents' behaviors, just as parents' behaviors influence the developing youth. It is plausible that youth who are high in risk-taking are inherently different from low risk-takers from birth. These characteristics and developmental interactions may influence the disciplining strategies used by parents. For example, over time, parents of high risk-takers may get tired and give up on trying to modify their youth's behaviors. Another aspect of the parent-youth mutuality is when youth perceive their parents as being risk-takers, they are more likely to take risks themselves.[46] Reducing parents' modeling of risky behaviors on the farm could possibly mitigate risk-taking tendencies in youth. Fathers are powerful role models, especially for sons.[16] Rather than doing work the way their fathers taught them to, adolescents instead model their unsafe farm practices.[12,17] It is important for farm fathers to model safe farm practices.

A key implication of these findings is that parents could potentially play an important role in influencing youth farm safety behaviors. So far as parents can be guided to socialize youth in ways that prevent them from indulging in risky behaviors on the farm, parents have the potential to play a lead role in preventing farm youth injuries and fatalities. Parents (especially fathers) need to devote time to teach and discuss farm safety with their youth. Since ongoing exposure is important for youth internalization of social norms, involving parents in delivering safety messages to youth on an ongoing basis provides youth with sustained exposure to safe farm-related socialization. Farm safety interventions need to focus on and involve parents. Interventions need to be sensitive to and respect the culture and values of families. Interventions need to focus not only on safe farm practices, but also promote positive parenting practices, including increased parent-youth communication about safety, consistent disciplining strategies, increased monitoring, and modeling of safe farm behaviors by parents. The challenge for current farm safety professionals is to support and guide families in keeping their youth away from high-risk situations on the farm, while still preserving and building upon the enduring values of farm culture.[38,47]

Limitations

These results need to be interpreted in light of certain limitations. Although this was one of the first studies to suggest an impact of parenting variables on youth farm safety behaviors, correlation is not causation; therefore, results need to be interpreted with caution. Although participants were recruited from a wide geographical area, participation was voluntary. The results may, therefore, not be representative of the population. Most

of the families were Caucasian, had relatively higher levels of education, and were from higher income categories. Self-selection bias was a potential limitation. The reliance on self-reports rather than naturalistic observations of farm behavior presents limitations. The fact that this study considered child reports of parenting rather than parents' self-reports is a strength. Child reports seem to be more valid measures of parental permissiveness, because children are more likely to be aware of the many times when they have circumvented parental rules or charmed their way out of punishments.[48] The cross-sectional nature of the study precluded the examination of changes over time. We measured unsafe farm behaviors but did not have the power to measure the prevalence of farm injuries. We controlled for youth age and gender; future studies need to control for other potential confounds, such as socioeconomic status, race, and parental education. Future research needs to further explore the long-term impact of parental and familial factors on youth safety behaviors and injury outcomes using longitudinal designs. Specifically, studies need to explore further whether an authoritative parenting style, which is a combination of explanations and rule setting, has an influence on youth farm safety behaviors.

Funding

This work was funded by National Institute on Occupational Safety and Health (NIOSH)/Centers for Disease Control and Prevention (CDC) grant 5 R01 OH009210-03.

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